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ABSTRACT

The first two ERIC at Stanford newsletters are followed by the first four numbers of "Now Available." The newsletters produced by the Educational Resources Information Center (ERIC) Clearninghouse on Educational Media and Technology contain announcements and short articles. "Now Available" also lists documents processed for "Research in Education" by the Clearinghouse. (CH)

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THE ERIC AT STANFORD NEWSLETTER

1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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NEWSLETTER 1

ERIC at Stanford

The Clearinghouse on Educational Media and Technology

Summer 1968 4 pages

New Clearinghouse, New Newsletter

This newsletter is the first from ERIC at Stanford, the Clearinghouse on Educational Media and Technology. Each issue will summarize clearinghouse activities and will present items and reviews of special interest to readers.

The clearinghouse at Stanford is one of 17 in the Educational Resources Information Center (ERIC) network, all supported by the U.S. Office of Education. Each clearinghouse focusses on one area of education, and plans its operations to most efficiently serve educators and researchers in that particular area.

A central staff at the U.S. Office of Education coordinates the network of clearinghouses, and oversees the processing and distribution of copies of documents.

The clearinghouse at Stanford wants to offer as much service as possible to all those concerned with educational media and technology, and welcomes suggestions on how to make knowledge in the field more easily available.

The clearinghouse is part of the Stanford Institute for Communication Research, and the director of the institute, Wilbur Schramm, also is director of the clearinghouse. The associate director of the clearinghouse is William J. Paisley, and director of publication is Don H. Coombs.

Future of ITV Predicted: Mainly Closed Circuit

By Robert B. Hudson
Senior Vice President
National Educational Television

(From his address "The Future of Educational Television," presented at Stanford University April 4, 1968, as part of "Toward Century 21—Some Selected Social and Technological Prognostics.")

. . . To plunge forthwith into an obscure future, instructional television, long before the turn of the century, will have little need for today's ETV stations. ITV will not be using the broadcast band of frequencies. The stations that were sought, reserved and claimed in the name of education will go public, that is, they will be used mainly for public broadcasting. Instructional, or school television, including academic and occupational courses for adults, will be carried mainly by closed circuit transmissions. This prediction is clearly contingent on the assumption that schools exist 30 years hence in much the same physical and functional

(Continued on Page 4)

Proposed Copyright Law Will Affect Education

By Fred S. Siebert
Michigan State University

For the last seven years the Copyright Office has been attempting to draft a revision of the 1909 Copyright Act which would be acceptable to the various interests affected. Two bills are currently before the Congress, H.R. 2512 in the House, and S. 597 in the Senate.

The main controversial areas affecting education are: (1) photocopying and microfilming, (2) use of copyrighted material on educational radio and television, and (3) use of copyrighted material in computers.

The current bills do not attempt to solve directly the problem of photocopying for educational use. However, copying which can be justified under "fair use" would be permitted.

Educational broadcasting, including closed circuit transmissions, would under the proposed bills be limited in the use of copyrighted materials (text, graphics, music) to purely "instructional" programs which are part of a regular class.

Although there is some uncertainty as to the right of education to use copyrighted material in computers under the present law, the proposed law would prohibit all use of copyrighted material in computers without permission of the copyright owners. Because of the controversial nature of this proposal, the Senate has recommended that a 23-member commission be set up to study the "reproduction and use of copyrighted materials in (1) automatic systems for storing, processing, retrieving and transferring information, and (2) by various forms of machine reproduction."

The following is an attempt to answer some of the more common problems which will arise under the proposed legislation and which will affect the practices of teachers:

1. Can a school videotape an instructional television program off the air and put it in its library for showing in later years?

Answer: (1) Under present law: Yes, if the later showing is either on a non-profit broadcasting station or within a school system. If the program is copyrighted or if it contains copyrighted material, it cannot be shown on a commercial station without clearance.

(2) Under proposed law: If the program is *not* copyrighted, a school can make any use it wishes—but if the program is copyrighted or contains copyrighted material (outside fair use), the school may make a recording but may not use it except for a part of a regular instructional pro-

gram. In other words, it may not use the program for general educational or "enrichment" purposes.

2. Can a school videotape a commercial program off the air and use it later for class instruction?

Answer: (1) Under present law, Yes, if the program is non-dramatic.

(2) Under proposed law: Two copies may be made if the program is non-dramatic, one for archival purposes and the other only for use as a "regular part of the systematic instructional activities of a governmental body or non-profit educational institution" and if reception is made primarily for "classrooms or similar places normally devoted to instruction."

3. Can a school library photocopy one page out of a copyrighted book at the request of a

Copying 1 Page Is Fair Use--

student who wants to use this method of "taking notes?" Can it copy 50 pages from the book for the student?

Answer: Under both present and proposed law, the school library may photocopy one page out of a copyrighted book. This comes under "fair use."

To copy 50 pages would be an infringement under both present and proposed law since it would go beyond the bounds of "fair use." Where the line should be drawn between say five and 50 pages is uncertain.

4. Can an instructor make 30 photocopies of a chapter from a copyrighted book for the use of the 30 students in his class?

Answer: No. Again, the instructor is going beyond "fair use" under both present and proposed law. The copying of an entire chapter would tend to interfere with the potential sales of the copyrighted book.

5. Can a school library make abstracts of copyrighted books or articles and store them in a computer for retrieval and use by scholars?

Answer: Under present law, abstracts which are paraphrases and which do not copy the literary form of the book may be made and stored in a computer for later use.

However, under the proposed law it is questionable whether such use is legal. The special commission mentioned above would be authorized to study this problem.

6. Can a university put a chapter from a

A Chapter in the Computer?

copyrighted book into a computer in order to make a content analysis of it?

Answer: Under present law, Yes, although attorneys for publishers contend that it is an infringement.

Under proposed law: No—unless the commission at some future date recommends a change which is accepted by Congress.

7. Can a teacher make slides of charts and pages from a copyrighted book in order to use them in a lecture?

Answer: Under present law, Yes, if the use is not-for-profit.

Under proposed law, the teacher may make slides of charts and pages of a book if

Only for Systematic Instruction--

the subsequent use is a part of a "systematic instructional program," designed for reception in a "classroom." Otherwise, the chart may not be used. However, the page from the book would come under "fair use."

8. A scholar received a pre-publication copy of a manuscript which is to be published in a copyrighted journal. Can he duplicate the manuscript for use by his class?

Answer: Under present law, No. This is governed by common-law pre-publication copyright.

The answer would be the same under the proposed law.

9. Can a teacher tape a musical program off the air for use in his classes?

Answer: Under present law, Yes. This is a not-for-profit use.

Under proposed law, he could tape the program and use it only if the use was a part of a program or "systematic instruction" in a classroom. He could not use the tape for a program in the school auditorium.

10. Can an individual borrow a record disc from a friend and tape it so that he can play the music on his own tape recorder?

Answer: Under present law, Yes.

Under proposed law, No, if the music is copyrighted. The proposed bills for the first time recognize property rights in a recording and give the recording company the right to prohibit any device which "directly or indirectly recaptures the actual sounds fixed in the recording."

Vintage McLuhan: Understanding New Media

Note: The following is an excerpt from Marshall McLuhan's *Report on Understanding New Media*, which was done as a Title VII project in 1960. The report should not be confused with McLuhan's book, *Understanding Media*; in the report McLuhan philosophizes on how students should be taught about the new media. ERIC at Stanford has processed the full report, and it will be available from the ERIC Document Reproduction Service after it is announced in *Research in Education*.

Official culture still strives to force the new languages to do the work of the old. But the horseless carriage didn't do the work of the horse; it abolished the horse and did what the horse could never do. Horses are fine. So are books.

Nobody yet knows the languages inherent in the new technological culture; we are all deaf-blind mutes in terms of the new situation. Our most impressive words and thoughts betray us by referring to the previously existent, not to the present.

The problem has been falsely seen as democracy vs. the mass media. But the mass media ARE democracy. The book itself was the first mechanical mass medium. What is really being asked, of course, is: can books' monopoly of knowledge survive the challenge of the new languages? The answer is no. What should be asked is: What can print do better than any other medium and is that worth doing?

11. Can a teacher borrow a record of copyrighted music from the school library for performance before his class? Can the record be played before the student body in the school auditorium?

Answer: Under present law, Yes to both questions.

Under the proposed law, the teacher could use the record in his class since this

But Not in the Auditorium--

is part of a "systematic program of instruction." However, the record, even though the property of the school system, could not be played in the school auditorium since it would not be a part of a class instruction and would under the terms of the bill be a "public performance" which requires clearance from the owner of the copyright on the music (not the owner of the copyright on the record).

12. What cases or legal precedents have been established to guide a school in determining its policy on these matters?

Answer: No legal cases, and very little precedent. No uniform pattern of permissions or clearances has been set up either in the textbook or music publishing field. Some publishers answer such requests promptly and give permission; others fail to answer or request a fee which is beyond the means of the local school system.

However, publishers of dramatic works seem to have devised a workable system of clearances for performances. Most newspapers and magazines, even though copyrighted, do not

The Most Troublesome Question--

object to the use of their contents for educational purposes.

The most troublesome question for the teacher is the extent of the "fair use" exemption. As pointed out in the answer to Question 3. to copy one page of a book would come under fair use; to copy 50 pages would not. Would 5 or 10 pages come under the exemption?

The proposed bill contains the following language on this problem: "Sec. 107 . . . . In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include:

(1) the purpose and character of the use;
(2) the nature of the copyrighted work;
(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
(4) the effect of the use upon the potential market for or value of the copyrighted work."

Which is not too much help to the teacher.

* * *

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What We've Been Doing--

One function of the newsletter is to keep readers informed of activities at the clearinghouse. In addition to collecting and processing documents for the ERIC system, the staff has been busy—

- Working on the machine-retrievable file of research abstracts,
- Commissioning and issuing Series I papers (a list of those available is presented in this newsletter),
- Commissioning and issuing Occasional Papers (which are also listed in this newsletter),
- Supporting the preparation of papers for the April 1968 *Review of Educational Research*, which reviews the educational media and technology literature from 1962 to 1968.
- Assisting the NDEA and Title VI-B Media Institutes around the country, mainly by providing materials.
- Arranging for regular ERIC columns in the journals of the Department of Audio-Visual Instruction, NEA,
- Reprinting a limited edition of *Learning from Television: What the Research Says* by Godwin Chu and Wilbur Schramm, to make copies available while it was being processed for microfiching by the ERIC Document Reproduction Service.
- Surveying, for National Educational Television and the National Center for School and College Television, all the educational television broadcasting in the country in preparation for issuing *One Week of Educational Television, No. 5.*
- Answering, to the best of our ability, requests for information on media and technology research.

Progress on the machine-retrievable file of research abstracts has been steady, and its completion is in sight. As soon as it is completed, definitive bibliographies for specific media and technology areas will be turned out.

Each future newsletter will keep you informed of just what materials and services ERIC at Stanford is able to supply. In addition, we hope the newsletter can serve as something of a forum. Short articles, letters to the editor, and comments from you will be most welcome.

--And You?

If you are engaged in educational media or technology research, ERIC at Stanford would appreciate receiving copies of reports so that your findings can be made available to the entire educational community. Simply send documents to the Director of Acquisitions.

Hudson on ITV, Cont.--

shape as we know them today, and this by no means is a certainty. Should the education of children and youth be reassigned on some larger dispersal base, computerized and instructional television information flow through CATV—community antenna television systems—could readily augment closed circuit systems.

The physical fact is, of course, that a single TV channel, or even two channels are not adequate to the instructional needs of a metropolitan area, or of a school system, or even of a single school. The subject matter, the grade level . . . all are variables to be reconciled. Already there are more students to be educated than can be handled effectively by current techniques of teaching and administration. The curve is sharply up and the pressure of sheer numbers will force more sophisticated technological innovation in instruction perhaps sooner than schools are ready for it.

We try to have diversified schools—quite the opposite of the French pattern where all students in a given grade study the same subjects at the

Same Subjects, Same Hour--

same clock hour—and we need diversified services. Open circuit broadcasting nevertheless is effectively opening up the school arena to electronic inputs and it will continue to service schools in remote areas but, inevitably, it will give ground to the multi-channel, closed-circuit system augmented, on a spot basis, by open channels in the 2500 megahertz band.

* * *

This newsletter was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

In This Issue

COPYRIGHT LAW AND EDUCATION

A "NEW" UNDERSTANDING MEDIA FROM McLUHAN

THE FUTURE OF ITV

AN INSERT:
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THIRD CLASS

NEWSLETTER 2

ERIC at Stanford

The Clearinghouse on Educational Media and Technology

Winter 1968/69 6 pages

Microfiche: A Fad, Or Here to Stay?

Editor's note: Many schools, libraries and offices have already bought microfiche readers and started microfiche collections. But some have delayed, wondering whether better ways of filing and retrieving documents will be available in the near future. To provide information on microfiche as a system in general, and to inquire about delivery of ERIC microfiche in particular, the newsletter interviewed Charles J. Koppa, Account Manager, The National Cash Register Company. Koppa is administrator of the USOE contract to operate the ERIC Document Reproduction Service, located at Bethesda, Md.

Q: What about microfiche as a system—is it here to stay? Should people invest in readers and build microfiche collections, or wait to see what happens?

Koppa: Microfiche for distribution of technical report literature is here to stay. Four years ago, the present 4 by 6 inch format became a government standard, and since then about 100 million sheets of film have been distributed in this country. The format isn't standard just with ERIC, but with NASA, CFSTI, the Defense Documentation Center, Atomic Energy Commission, and so on. So there's an on-going commitment to the system.

Q: What about micro-microfiche, or ultra-micro fiche? Isn't that the coming thing?

Koppa: It's already here. NCR can put 3,000 pages on a single sheet of film. A micro-micro reader costs about $700, but that's not a big problem. Ultra-microfiche isn't the answer for technical report users because it isn't practical. A normal ERIC document fits on one 4 by 6 inch sheet of ordinary microfiche. That way, it's easy to find and easy to handle. Ultra-microfiche will be useful to supply frequently updated masses of data to a large audience, and to re-package reports periodically into selected historical packages. But this should not effect today's microfiche distribution system.

Q: What about individual microfiche? Are they here to stay? I mean, do they stay usable?

Koppa: Yes. Fiche supplied by ERIC Document Reproduction System—and almost every system—have shelf life equal to that of good quality paper. I'm talking about 100 years or more. Probably a lot longer than that, but at least that long, as indicated by simulated aging tests. So individual microfiche give the user low cost, timely information that allows interfiling of reports from various sources into his own personal reference and filing system.

Q: That reminds me of hardcopy ordered from ERIC Document Reproduction Service. I've seen some that was pumpkin colored—

(Continued on Page 3)

New ETV Equipment, More Programming Planned

The order of the day—and year—is change, as far as educational television is concerned.

Only 30 of the current UHF-VHF educational stations in the United States do not anticipate major changes in programming or facilities in the next twelve months. Each of the other 86 expect at least one major change, and many expect several.

In a small sample of Instructional Television Fixed Service (2500 Mhz) and closed circuit operations, 75% of each were found to expect major changes.

The information on changes expected was something of a byproduct of *One Week of Educational Television No. 5.* The survey this year was sponsored by National Educational Television and the National Instructional Television Center, and conducted by ERIC at Stanford. The census of a week's programming in May involved recording data from 152 UHF-VHF stations but, because of networks and satellite stations, only 116 different program schedules were involved.

Added equipment and increased programming were the changes most UHF-VHF stations anticipated, which is not surprising. The particular types of equipment and program changes expected are interesting, though:

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What's a clearinghouse involved with computers and multimedia presentations and, in general, today's Marshall McLuhan world—what's it doing with such a square newsletter? Tan color, lots of words, not many pictures—no Zam, no Pow.

Well, we're doing the best we can. We realize that lots of slick color and loud noise and strobe lights attract attention. But they also cost money.

And some people still read. You still read, for example. We're banking on the fact that people like you will understand our situation and give us a read in spite of pretty conservative presentation. And if you do, we'll bring things to your attention which will add Zam and Pow to your teaching. Or your researching, or administrating, or studenting.

To get/stay on our mailing list, though, it is vital that you return the identification card included with this issue of the newsletter.

The particular ty... ni
expected are presented

Added programming, . .	19
Added weekend programming	10

(Continued on Page 2)

ETV Changes, Cont.—

and conducted by ERIC at Stanford. The census of a week's programming in May involved recording data from 152 UHF-VHF stations but, because of networks and satellite stations, only 116 different program schedule were involved.

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	No. of UHF-VHF Stations
New equipment, in general	6
Equipment to achieve, or add to, capability to broadcast in color	16
Remote units	9
Video tape recorders	5
Cameras	4
Transmitting towers	4
Complete satellite or translator stations	3
Transmitters	2
New facilities (space, or buildings)	11

The particular types of programming changes expected are presented below:

Added programming, in general	10
Added weekend programming	10
Added evening programming	9
Added local public affairs programming	8
Added instructional television and adult education	7
Added weekday programming	6
Added minority programming	3

In contrast to the tight structure of the rest of the survey, the question on changes anticipated was open-ended. That is, program directors were just asked to volunteer what they expected. The results thus are not what they would be if each program director were confronted with a list of all possible changes, and asked to check those likely to occur at his station.

One virtue of the approach employed is that the results give an indication of what is foremost

Foremost on Their Minds—

on the minds of educational television station personnel. The approach does not reveal, however, the total number of stations planning particular changes; more than five may be planning to add video tape recorders, but the program directors may not have thought of it just then or may not have considered such an addition to be a major change.

Six of the UHF-VHF stations expected to increase local production, while one planned to eliminate it. Another station planned to decrease the quantity of local production in order to increase the quality. Where local production was to be increased, there was some indication that the principle content was to be local public affairs, which could not be presented in any other way.

Other expected changes:

	No. of UHF-VHF Stations
Increasing transmitter power	5
Achieving interconnection	5
Going "full color"	3
Having more remote pickups	3
Adding personnel	3

(Probably far more than 3 stations expect to add personnel; the question asked only for changes expected in programming and facilities.)

Among the sample of 44 closed circuit educational television operations, 33 listed some change expected. Leading the list were added programming (9), additional video tape recorders (8), and transmitting over additional channels (6).

ITFS is relatively new, and information from 24 of the 2500 MHZ broadcasting operations

18 of 24: Major Change—

revealed 18 expect major changes. Leading the list were added programming (11), new equipment (7), and increase in local production (4).

The general tenor of the answers was optimistic, though several of the directors indicated their plans depended on receiving federal grants. Only one response was flatly pessimistic:

Changes expected—"None, unless we get a more realistic budget or viable grants for programming, equipment updating and repair, and hiring of sufficient personnel."

The complete *One Week of Educational Television No. 5* will be published this winter by NET and NIT, and will summarize a wide variety of programming practices and policies. A future issue of this newsletter will announce its availability.

Price of RIE To Go Up January 1st

The Government Printing Office has announced that subscriptions to *Research in Education* will be priced at $21 a year, up from $11, as of January 1, 1969. Single issues will cost $1.75, and foreign subscriptions $26.25 a year. Existing subscriptions will continue at the old rate until they expire. Subscription orders should be addressed to U.S. Government Printing Office, Washington, D.C. 20402.

Copyright Law Delay Considered Fortunate

Last summer it seemed many teachers, audio-visual specialists and educational broadcasters might wake up to find themselves breaking the law—the copyright law, which was being revised for the first time in many years.

Senate Bill 597 was not acted on, however, and new legislation will have to be introduced in the next session of congress. The house version of the bill had been passed in 1967, and Senate passage seemed likely until questions arose about such things as its effect on photocopying and on instructional use of the new media.

Now Harold E. Wigren, of the NEA's Division of Educational Technology, thinks the delay may be fortunate. The NEA has just issued his "Current Developments in the Copyright Law Revision Situation," a nine-page summary which puts the issues in perspective.

"Many of the safeguards and protections which teachers have in the present law against possible infringement [were] removed from the new bills," Wigren states. "Education . . . is seeking to obtain a new law which is reasonable, just, and equitable to both authors (as creators) and teachers (as users) and which will strike a fair balance between both. We seek a law which is sensible and

A Law that Can Be Enforced—

which will be responsive to creative teaching and learning practices—one that can be enforced by the profession itself."

As listed by Wigren, the proposed changes which should be of concern to educators lie in the areas of fair use, waiver of statuatory damages for innocent educational infringers, education's use of the new technology, the use of instructional television and radio, and the right to make limited copies of materials in the course of day-to-day classroom activities.

Senate Bill 597 provided for statutory recognition of the doctrine of "fair use," but with considerable restriction. The effect of the use on the potential market was to be considered, for instance, though it would be difficult to determine. The report which the House sent along with its version of the bill said, "Where the unauthorized copying displaces what realistically might have been a sale, no matter how minor the amount of money involved, the interests of the copyright owner need protection."

Wigren suggests that one could argue "that any use of a given copyrighted work, no matter

No "Fair Use" at All?

how minor, displaces what realistically might have been a sale and is therefore an infringement. In that event, nothing would be permitted as 'fair use.' It is our hope that this criterion can be modified or eliminated entirely . . . ."

Librarians, as might be expected, are quite concerned about legal restrictions on photocopying, which continues to increase both in and out of schools. Even use of dial access instructional systems, when copyrighted materials are made available through closed-circuit or private microwave (ITFS) linking, might be prohibited under legislation such as Senate Bill 597.

For all these reasons, Wigren hopes that further study will lead to legislation with more concern for the public interest. As he puts it, "To date the revision program has been unbalanced and

The Public Interest: Ignored

heavily weighted on the side of the author and publisher. The public interest has largely been ignored."

He reports efforts of the Association of Classroom Teachers to set up copyright task forces on the state level to study the copyright situation and alert other teachers to what is involved. Copies of the Wigren report can be obtained, while supplies last, from the Division of Education Technology, NEA, 1201 16th St., N.W., Washington, D.C. 20036.

Keep Those Cards and Letters Coming, But—

Two questions are often asked in letters to the clearinghouse:

1) "What films (or other media) are available to teach such and such a subject?"
2) "What's the best buy in a particular type of audiovisual equipment?"

These are good, and important, questions, and the more that they are asked – and answered – the better, for American education. But they don't happen to be the questions which ERIC at Stanford is equipped to answer. The Stanford clearinghouse is concentrating on research which evaluates the effects of using different modern educational media in different ways.

Fortunately, some other organizations have answers to those questions. The National Information Center for Educational Media (NICEM, for short) is organizing information on what specific materials are available in the non-text media. NICEM should be able, that is, to provide listings of films, film strips, videotapes, audio tapes and overhead transparencies. A listing of instructional slide sets is not available now, but will be completed soon. Glenn McMurry is director, and the

"Best Buys" Now Listed—

organization's complete address is NICEM, University of Southern California, University Park, Los Angeles, Calif. 90007.

When it comes to "best buys," it would be nice to be able to refer to something like *Consumer Reports*, in which projectors, video tape recorders and classroom science kits would be dispassionately evaluated. Now this is possible.

The Educational Products Information Exchange Institute (EPIE, for short) is a non-profit information service for educators, and the journal it publishes is *Educational Product Report*. The organization recently was commended by the

Microfiche, Cont.—

Koppa: That was our start-out system. It wasn't so good. Last summer we shifted to a new system which turns out good clean copies—white paper, black print—and they're more durable than reproductions by photocopying systems.

Q: Some users have complained about it taking so long to get orders filled.

Koppa: It did. Mainly the problem was the popularity of ERIC documents. No one expected so many orders for either hardcopy or fiche, and

Shot Out of the Water

last April when they piled up we realized we were going to get shot out of the water. All we could do was order new equipment. But you can't just order a stock system—the equipment has to be built to order, and that takes three to four months. The new equipment was delivered in August.

Q: What's the hardcopy backlog amount to now?

Koppa: There isn't any backlog. For the first time, there isn't any. The new equipment turns out 25,000 pages of hardcopy a day, and now we're caught up and handling the current orders of about 9,000 pages a day with no trouble. We're just sorry some customers were inconvenienced in the past. We hope they'll give us another chance.

Q: If you got an order for hardcopy today—

Koppa: We'd get it in the mail in three or four days. And the same thing goes for "on

Up to Date By Christmas—

demand" microfiche documents. We haven't been able to get up to date on many "collection" orders placed for fiche yet, but we're looking forward to that too. By Christmas.

Q: So by Christmas the ERIC Document Reproduction Service will have what capability?

Koppa: Well, the 25,000 pages of hardcopy a day that I mentioned, and over a million microfiche a month. There are lots of big numbers involved, now that the ERIC system is becoming known. For instance: In one week in September, we produced 250,000 microfiche and 125,000 pages of hardcopy. We used 36 miles of microfilm

2000 Miles of Information—

and paper. If everything had been printed in ordinary fashion, with 8 1/2 by 11 inch pages, that would have been 2,000 miles of information.

Q: Okay. Now let's say I'm in a school district or a state department of education or a college library, without microfiche or microfiche equipment. How would I get started?

Koppa: We finally got to the rigged question, didn't we? What I'd do is get in touch with a friendly ERIC Clearinghouse, like the one at Stanford, and ask for help!

Q: And how could they help?

Koppa: You've got to be kidding. You tell ME how you could help.

A: ERIC at Stanford would be pleased to provide

1) A sample ERIC microfiche, so you can see how sturdy and compact they are.
2) Information on how to evaluate microfiche readers, prior to purchase.
3) Information on how to catch up with ERIC—how to order the appropriate index and abstract publications and some 25,000 ERIC microfiche processed in the past for about $2,000—or how to order selected parts of the ERIC collection, or how to place a standing order for all ERIC fiche from now on at 8.4¢ each, or how to order just one fiche for 25¢.

Clearinghouse Staff Involved In Variety of Activities

One function of the newsletter is to keep readers informed of activities at the clearinghouse. The following presentation is not exhaustive, but does demonstrate that the staff is busy with much more than just collecting and processing documents for the ERIC system.

Marguerite Fischer lectured at UCLA on "ERIC Tools, Their Capabilities and Use," and "Indexing and Abstracting." She also published a paper, "A Coded Card Catalogue Using MeSH," in a British journal, *The Indexer*.

Linda Harris has a grant from AERA to study readership of the *Review of Educational Research*, and that study is nearing completion. She has also been working with System Development Corporation, under a contract from the U.S. Office of Education, on a study of the impact of the *Annual Review of Information Science and Technology*. Together with Wm. Andrew Collins, she is completing the analysis of the Summer Media Institute information needs studies.

David Kingwood is completing a dissertation study of the "invisible college" of educational researchers—which complements his earlier study of attitude researchers within the American Psychological Association. He was to present his findings at the AERA colloquium on information transfer in education in Washington November 21-22.

Colin Mick programmed the data processing for *One Week of Educational Television*, the NET and NIT-sponsored survey which sought 18 measures on each of 18,000 telecasts.

After reorganization, the clearinghouse's document-processing staff now consists of Marguerite Fischer (supervisor), Leonard Schwarz (serials collection, journal indexing, and special projects), Michele Timbie (abstract editing and "abstract backfile" project), and Joann George (final resume preparation).

Violet Lofgren continued to manage clearinghouse office activities. Talented assistance in a variety of tasks was provided by Lucinda Miller, Janice Matthews, Diane George, Kathy Brown, Susan Barozzi and Beverly Brown.

Office of Education's acting associate commissioner for elementary and secondary education for "providing leadership in endeavoring to solve current difficulties encountered in the transition from stereotyped classroom instruction to individualized instruction using modern technological aids . . . ."

In its nine monthly issues this school year, *Educational Product Report* will present evaluations of such things as programmed instructional materials, simulation devices and instructional games, and 8 mm projectors. Schools or other users subscribing at this time also can secure the backfile of evaluations published during the 1967-68 school year. P. Kenneth Komoski is director of EPIE, and the organization's address is 386 Park Avenue South, New York, N.Y. 10016.

Much as the staff at the ERIC clearinghouse like to get mail, questions similar to those above can best be sent directly to NICEM or EPIE, at the addresses given.

Yarborough Introduces Educational Technology Act

"The Educational Technology Act of 1968," introduced as Senate Bill 4184 by Sen. Ralph Yarborough of Texas, would provide funds for a comprehensive approach to utilizing technology in the schools.

In introducing the bill, Yarborough said it was "designed to meet all of the requirements for the successful introduction of technology into education. Most important, it is geared toward the bringing about of significant improvements in the educational process."

He said it was important that it be comprehensive because "while it is readily apparent that educational materials, such as instructional films, would be useless without accompanying equipment, it is not so readily apparent that professional media personnel, area centers and operational funds are required in order to realize the potential of communications media.

"We all know that instructional technology is not a simple concept. We know that it is not simply more movies for more kids in their self-contained, 19th century classrooms. Educational technology offers the 'keys' for major breakthroughs in achieving instructional excellence."

Hearings on the measure will not be held until Spring. The Division of Audiovisual Instruction of the NEA has announced plans to send a copy of the bill to each DAVI member before then, and copies also are available from Sen. Yarborough's staff at the Senate Office Building, Washington, D.C.

* * *

If you are engaged in educational media or technology research, ERIC at Stanford would appreciate receiving copies of reports so that your findings can be made available to the entire educational community. Simply send two copies to Supervisor of Document Processing, ERIC Clearinghouse, Institute for Communication Research, Stanford, Cal. 94305.

The ERIC System— Tools Help You Use It

The clearinghouse at Stanford is just one of 19 ERIC clearinghouses, but even those 19 represent only a part of the whole system. There is also 1) Central ERIC, the headquarters staff at the U.S. Office of Education which coordinates activities, 2) The ERIC Document Reproduction System, which makes microfiche and hardcopy of documents available, and 3) You, because you are—or at least we hope you will be—very much a part of the system.

Finding needed information in the ERIC collection is easier if you take advantage of the available tools:

- *The Thesaurus of ERIC Descriptors (First Edition)*, December 1967, contains about 3,100 descriptors which can be used in searching listings of ERIC documents. From the Government Printing Office (GPO) as publication OE-12031—$2.50.
- *The Thesaurus of ERIC Descriptors (First Edition) Supplement No. 1*, March 1968, adds about 400 descriptors and presents a rotated display of all 3,500 ERIC descriptors. From GPO as publication OE-12031-1, $2.
- *Office of Education Research Reports 1956-65* contains 1,214 research reports on projects supported by the U.S. Office of Education from 1956-65. The volume of abstracts is available from GPO as publication OE-12029 for $1.75; the index volume from GPO as publication OE-12028 for $2.
- *Research in Education Annual Index—1967 Reports* combines the indexes to reports cited in the first 14 issues of *Research in Education*. From GPO for $3.25.
- *Research in Education Annual Index—1967 Projects* combines the indexes to projects cited in the first 14 issues of *Research in Education*. From GPO for $1.50.
- *Research in Education*, the monthly journal, indexes and abstracts the documents added to the ERIC collection. From GPO for $1 a copy, $11 a year until January 1, 1969, when the price goes up.
- *Research in Education—Semi-Annual Index—Reports*, January-June 1968 will cumulate the contents of the first six 1968 *RIEs*. This semi-annual index will be available from GPO; it will be announced in RIE and in bulletins from ERIC at Stanford.
- "ERIC at Stanford Would Like to Help" presents the steps, in 1,2,3,4,5,6,7 order, involved in using the ERIC system. This brochure is available free.
- *Now Available*, a periodic bulletin which lists all educational media and technology documents input by the clearinghouse at Stanford. *Now Available* is sent, free, to all those on the clearinghouse mailing list.

Paisley Succeeds Schramm As Clearinghouse Director

William J. Paisley is now director of the clearinghouse, having succeeded Wilbur Schramm in September. Dr. Schramm will serve as chairman of the clearinghouse advisory board, and will continue to assist with special projects.

Dr. Paisley received an MA from Syracuse University and his PhD from Stanford, in Communication Research, and is an assistant professor in the Stanford Department of Communication. He has participated in a number of information-flow studies and in symposia on information science and research methodology, and he contributed the first chapter, "Information Needs and Uses," to the 1968 *Annual Review of Information Science and Technology*. His book on the flow of scientific and professional information will be published by Holt, Rinehart and Winston next spring.

The new associate director is Don H. Coombs, also a Stanford PhD and an assistant professor in the Department of Communication. Marguerite Fischer, with a graduate degree in librarianship, has joined the clearinghouse staff as systems analyst and supervisor of document processing.

* * *

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In This Issue

MICROFICHE IS HERE TO STAY?
ETV STATIONS EXPECT CHANGES
THE ROLES OF E.P.I.E. AND N.I.C.E.M.
A CONTINUED STORY: THE COPYRIGHT LAW AND EDUCATION
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This newsletter was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

NEWSLETTER
from
the ERIC Clearinghouse on Educational Media and Technology
at the Institute for Communication Research
Stanford University
Stanford, Calif. 94305

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Documents Which Have Been Input And Now Can Be Ordered

Each document listed here has been input to the central system and can be ordered, in microfiche or hardcopy form, from the ERIC Document Reproduction Service. Future "*Now Available*" lists will continue to keep you informed of all documents input by ERIC at Stanford. Though enough information is provided here to allow documents to be ordered, the appropriate issues of *Research in Education* contain detailed resumes of the documents, and you may wish to check those first. In addition, *Research in Education* lists the documents input by all the other clearinghouses in the ERIC system, and some of those documents are relevant to educational media and technology.

Explanation of the Entries

ED number—This is the accession number of the document and should be used when ordering from the ERIC Document Reproduction Service.

Price and Pages—The cost of the document in microfiche (MF) and hardcopy (HC) is given, along with its length.

Descriptors—The paragraph of descriptive terms represents the subject matter of the document.

ED 013 536

Lyle, David. *Washington County Closed-Circuit Television Report,* Washington County Board of Educ., Hagerstown, Md. EDRS Price MF $0.50 HC $3.48 85p.

Descriptors Classroom Research, Closed Circuit Television, Educational Improvement, Instructional Television, Student Teacher Relationship, Academic Achievement, Audiovisual Aids, Class Size, Conventional Instruction, Costs, Curriculum, Effective Teaching, Elementary Schools, Hagerstown, High Schools, Junior High Schools, Maryland, Rural Urban Differences, Student Attitudes, Teacher Attitudes.

ED 013 537

Orton, Kenneth D. *The Effects of Certain Response Characteristics in Programed Instruction on Errors, Rate of Learning, and Retention,* Nebraska Univ., Lincoln. Report Number CRP-S-478, Report Number BR-5-8433, Pub Date 67, EDRS Price MF $0.50 HC $3.64 89p.

Descriptors College Students, Educational Psychology, Programed Instruction, Response Mode, Teaching Machines, Academic Performance, Experiments, Lincoln, Linear Programing, Nebraska, Retention.

ED 013 538

Scanlon, James A., and Tom, Frederick K.T. *The Relative Effectiveness of Supplementing Programed Instruction with Blocked Versus Spaced Review,* Cornell Univ., Ithaca, N.Y. Report Number BR-7-8068, Pub Date 18 May 67, EDRS Price MF $0.25 HC $1.84 44 p.

Descriptors Agricultural Education, Grade 9, Instructional Films, Programed Instruction, Review (Reexamination), Experiments, Learning, Programed Texts, Projection Equipment, Retention.

ED 013 539

Schurdak, John J. *An Approach to the Use of Computers in the Instructional Process and Evaluation,* International Business Machines Corp. Report Number RR-RC-1432, Pub Date 06 Jul 65, EDRS Price MF $0.25 HC $1.68 40p.

Descriptors College Graduates, College Students, Programed Instruction, Programed Texts, Teaching Machines, Academic Ability, Academic Performance, Conventional Instruction, Experiments, Linear Programing, New York, New York City, Programing, Student Attitudes.

ED 013 540

Carpenter, C.R., and Greenhill, L.P. *An Investigation of Closed-Circuit Television for Teaching University Courses, Instructional Television Research, Project Number One,* Pennsylvania State Univ., University Park. Pub Date 31 Jul 55, EDRS Price MF $0.50 HC $4.32 106p.

Descriptors Classroom Research, Closed Circuit Television, College Students, College Teachers, Instructional Television, Psychology, Academic Performance, Chemistry, Costs, Effective Teaching, Equipment Standards, Experiments, Feasibility Studies, Student Attitudes, Student Teacher Relationship, Teacher Attitudes.

ED 013 541

Filep, Robert T. *The Relationship of Learner Characteristics to Media Stimuli and Programing Sequences,* System Development Corp., Santa Monica, Calif. Report Number SP-2718-000-01, Pub Date 03 Apr 67, EDRS Price MF $0.25 HC $1.56 37p.

Descriptors Grade 8, Instructional Films, Programed Instruction, Teaching Machines, Academic Ability, Aural Stimuli, California, Characteristics, Ethnic Origins, Experiments, Intelligence, Learning, Linear Programing, Los Angeles, Natural Sciences, Optional Branching, Projection Equipment, Sex, Socioeconomic Status, Visual Stimuli.

ED 013 542

Levonian, Edward, and Case, Harry W. *Effectiveness of Traffic Safety Films in Relation to Emotional Involvement,* California Univ., Los Angeles. Report Number ITTE-RR-40, Pub Date Jun 65, EDRS Price MF $0.75 HC $7.72 191p.

Descriptors Anxiety, Driver Education, High School Students, Instructional Films, Retention, California, Effective Teaching, Fear, Los Angeles, Traffic Safety.

ED 014 211

Macomber, F.G. *Experimental Study in Instructional Procedures, Second Report,* Miami Univ., Oxford, Ohio.

Now Available
Number 1

The Clearinghouse is part of the Institute for Communication Research
Stanford University, Stanford, Calif. 94305

Report Number MU-R-2, Pub Date 1 Oct 57, EDRS Price MF $0.50 HC $2.80 68p.

Descriptors Academic Achievement, College Curriculum, College Students, Instructional Television, Mass Instruction, College Teachers, Conventional Instruction, Evaluation Methods, Experiments, Ohio, Oxford, Student Attitudes, Teacher Attitudes, Teaching Methods.

ED 014 212
Mandle, William Dee. *A Comparative Study of Programmed and Traditional Techniques for Teaching Music Reading in the Upper Elementary Schools, Utilizing a Keyboard Approach, Final Report,* Western Reserve Univ., Cleveland, Ohio. Report Number BR-6-8164, Pub Date Jan 67, EDRS Price MF $1.25 HC $11.88 295p.

Descriptors Grade 4, Grade 5, Grade 6, Music Reading, Programed Instruction, Audiovisual Aids, Cleveland, Conventional Instruction, Experiments, Music Education, Ohio.

ED 014 213
Martin, John R., and others. *Studies in Educational Closed-Circuit Television,* Case Inst. of Tech., Cleveland, Ohio. Report Number RR-948-5, Pub Date 15 Nov 58, EDRS Price MF $0.50 HC $3.36 82p.

Descriptors Chemistry, Classroom Research, College Students, College Teachers, Instructional Television, Audiovisual Aids, Closed Circuit Television, Costs, Effective Teaching, Engineering Graphics, Equipment Standards, Student Attitudes, Student Teacher Relationship, Teacher Attitudes.

ED 014 214
Merrill, I.R. *The Impact of an Educational Television Series, An Experimental Study,* Michigan St. Univ., East Lansing. Report Number WKAR-TV-RR-573M, Michigan St. Univ., East Lansing, Agr. Exp. Station, Pub Date Apr 57, EDRS Price MF $0.50 HC $3.44 84p.

Descriptors Adults, Agricultural Research Projects, Changing Attitudes, Educational Television, Learning, Rural Population, Sex Differences, Urban Population.

ED 014 215
Suppes, Patrick, and others. *Arithmetic Drills and Review on a Computer-Based Teletype,* Stanford Univ., Calif., Inst. Math.-Studies Soc. Sci. Report Number Psychol-Ser-TR-83, Pub Date 5 Nov 65, EDRS Price MF $0.25 HC $0.76 17p.

Descriptors Arithmetic, Feedback, Problem Sets, Teaching Machines, Tests of Significance, California, Cupertino School District, Grant School.

ED 014 216
Tsuji, Isao. *The Effect of TV School Broadcast on Children in Isolated Villages,* NHK Radio and TV Culture Research Inst. Pub Date 64, EDRS Price MF $0.25 HC $0.92 21p.

Descriptors Academic Achievement, Elementary School Science, Grade 5, Instructional Television, Social Studies, Conventional Instruction, Cultural Isolation, Experiments, Intelligence Tests, Japan, Japan Broadcasting Corporation, Primary Education, Rural Education.

ED 014 217
Wriggle, Larry, and Hite, Herbert. *The Amount and Nature of Teacher Help Necessary for Optimum Achievement Through Use of Programed Learning Devices,* Washington Off. State Supt. Pub. Instr., Olympia, Report Number RR-05-01, Pub Date 20 Dec 62, EDRS Price MF $0.25 HC $1.56 37p.

Descriptors Academic Performance, Grade 9, Programed Instruction, Set Theory, Teacher Role, Columbia Basin School Study Council.

ED 014 218
Baldwin, E.D., and Hite, Herbert. *The Effectiveness of Different Forms of Supplementation as Adjuncts to Programed Learning, A Follow-up Study,* Washington Off. State Supt. Pub. Instr., Olympia. Report Number RR-05-04, Pub Date Jun 63, EDRS Price MF $0.50 HC $2.68 65p.

Descriptors Effective Teaching, Grade 6, Programed Instruction, Reading Skills, Vocational Skills, Covert Response, Retention, Rural Education, Student Teacher Relationship, Teacher Role, Urban Education.

ED 014 219
Filep, Robert T., and Murphy, D. Brian. *Computer-Assisted Learning for In-Service Teacher Education,* System Development Corp., Santa Monica, Calif. Report Number TM-(L)-3494, Pub Date 15 May 67, Document Not Available from EDRS.

Descriptors Achievement Gains, Biology Instruction, Computer Assisted Instruction, Field Studies, Inservice Teacher Education, Albany, New York.

ED 014 220
Kanner, Joseph H., and others. *A Report on Television in Army Training–Evaluation of "Intensive" Television for Teaching Basic Electricity,* Office of the Chief Signal Officer, Dept. of Army. Pub Date 03 Jun 58, EDRS Price MF $0.25 HC $1.92 46p.

Descriptors Academic Performance, Aptitude, Instructional Television, Tests of Significance, Time Factors (Learning), Fort Gordon, Georgia.

ED 014 221
Kanner, Joseph H., and Marshall, Wesley P. *A Report on Television in Basic Training–The Improvement of Basic Training by Television,* Office of the Chief Signal Officer, Dept. of Army. Pub Date Apr 63, EDRS Price MF $0.25 HC $1.84 44p.

Descriptors Academic Performance, Aptitude, Instructional Television, Teaching Methods, Tests of Significance Fort Gordon, Georgia.

ED 014 222
Kanner, Joseph H., and others. *A Report on Television in Army Training–The Application of Television and Kinescope Recordings to Reduce Instructor and Student Training Time and Training Costs,* Office of the Chief Signal Officer, Dept. of Army. Pub Date 1 Jun 58, EDRS Price MF $0.25 HC $1.80 43p.

Descriptors Academic Performance, Aptitude, Electronics, Instructional Television, Teaching Methods, Fort Gordon, Georgia, U.S. Army Southeastern Signal Corps School.

ED 014 223
Kumata, Hideya. *Attitude Change and Learning as a Function of Prestige of Instructor and Mode of Presentation. Two Experimental Studies in Instructional Television,* Michigan St. Univ., East Lansing, Coll. of Commun. Pub Date 58, EDRS Price MF $0.75 HC $5.72 141p.

Descriptors Changing Attitudes, College Students, Instructional Television, Journalism, Learning, Social Sci-

ences, Closed Circuit Television, Conventional Instruction, Retention, Student Ability, Teacher Qualifications, Vidcon Equipment, Visual Learning.

ED 014 224

Lepore, Albert R., and Wilson, Jack D. *Instructional Television Research Project Number Two. An Experimental Study of College Instruction Using Broadcast Television,* San Francisco State Coll, Calif. Station KQED, San Francisco, Calif. Pub Date 58, EDRS Price MF $0.50 HC $3.20 78p.

Descriptors Academic Achievement, College Curriculum, College Students, Instructional Television, Adults, California, Conventional Instruction, Costs, Creative Art, English, High School Students, Institutionalized (Persons), Psychology, San Francisco, Sciences, Student Attitudes, Teaching Methods.

ED 014 225

Report of the Ohio Interim Educational Television Study Commission to the 104th Ohio General Assembly, Ohio Educational TV Network Commission, Columbus. Pub Date 15 Feb 61, EDRS Price MF $0.25 HC $1.72 41p.

Descriptors Educational Television, Feasibility Studies, Research, Surveys, Equipment.

ED 014 226

Nachtigal, Paul. *A Computerized Approach to the Individualizing of Instructional Experiences,* Boulder Valley Public Schools, Colo. Report Number BR-6-0481, EDRS Price MF $0.25 HC $0.96 22p.

Descriptors Computer Assisted Instruction, Curriculum Development, Student Characteristics, Systems Approach, Teacher Role, Columbine Elementary School.

ED 014 227

Wing, Richard L., and others. *The Production and Evaluation of Three Computer-Based Economics Games for the Sixth Grade. Final Report,* Westchester County Board of Coop. Educ. Services. Report Number CRP-2841, Report Number BR-5-0320, Pub Date Jun 67, EDRS Price MF $0.75 HC $7.72 191p.

Descriptors Achievement Gains, Computer Assisted Instruction, Economics, Grade 6, Simulated Environment, Conventional Instruction, Fortran, Games, IBM 1050 Terminals, IBM 1401 Computer, IBM 7090 Computer, Individual Instruction, Intelligence Factors, Retention, Time Factors (Learning).

ED 014 228

McIntyre, Charles J., and Haney, John B. Aids to the *Implications and Feasibility of the Full Application of Technological Aids to the Solution of Staff, Space, and Curriculum Problems Associated with a Rapidly Growing Urban University, Final Report.* Illinois Univ., Chicago Circle. Report Number NDEA VIIB-439, Report Number BR-5-0994, Pub Date Mar 67, EDRS Price MF $0.50 HC $4.24 104p.

Descriptors Costs, Educational Equipment, Instructional Media, Personnel, Physical Facilities, Chicago Circle, Committees, Instructional Innovation, University of Illinois, Urban Environment.

ED 014 229

Hyer, Anna L. *Educational Media Research Abstracting Project. Final Report,* National Education Assn., Washington, D.C. Report Number BR-6-8424, Report Number NDEA-VIIB-617, Pub Date May 67, EDRS Price MF $0.25 HC $0.36 7p.

Descriptors Abstracting, Educational Research, Costs, Research Reviews (Publications).

ED 014 230

Gliessman, David, and Williams, Don G. *Inter-University Film Project–The Cooperative Writing and Testing of Scripts for a Motion Picture Series to be Used in Teacher Training,* Missouri Univ., Kansas City, Sch. of Educ. Report Number BR-5-0996, Pub Date 8 Apr 66, EDRS Price MF $0.25 HC $1.36 32p.

Descriptors College Students, Elementary Education, Instructional Films, Secondary Education, Teacher Education, Classroom Research, Educational Psychology, Kansas City, Mo.

ED 014 231

Cobun, Ted, and others. *Quantitative Standards for Audiovisual Personnel, Equipment and Materials (in Elementary, Secondary, and Higher Education),* National Education Assn., Washington, D.C. Report Number BR-5-0265, Report Number NDEA-VIIB-489, Pub Date Jan 66, EDRS Price MF $0.25 HC $0.84 19p.

Descriptors Agencies, Audiovisual Instruction, Comparative Analysis, Equipment Standards, Instructional Materials.

ED 014 232

Porter, Douglas. *A Report on Instructional Devices in Foreign Language Teaching,* Pub Date 01 Oct 58, EDRS Price MF $0.25 HC $0.92 21p.

Descriptors Audiovisual Instruction, Evaluation, Psychology, Teaching Machines, Teaching Methods, Mohawk Message Repeater Units.

ED 014 233

Beginning Russian, A Study of Audiences to a Televised College Course, Canadian Broadcasting Corp., Ottawa (Ontario). Pub Date Apr 61, EDRS Price MF $0.25 HC $1.88 45p.

Descriptors Educational Television, Language Instruction, Questionnaires, Student Attitudes, Surveys.

ED 014 234

"Let's Speak English," An Experiment in Adult Educational TV Designed to Teach English to Beginners, with a Report on the Audience Reached and Its Reactions to the Program, Canadian Broadcasting Corp., Ottawa (Ontario). Report Number CBC-TV-67-43, Pub Date Jun 67, EDRS Price MF $0.50 HC $4.08 100p.

How to Order Copies of Documents

You may order microfiche or hardcopy from the ERIC Document Reproduction Service at the following address:

EDRS
NCR Company
4936 Fairmont Ave.
Bethesda, Md. 20014

There is a 50¢ handling charge on orders smaller than $3, and payment must accompany orders smaller than $5. More-detailed ordering instructions are included in each issue of *Research in Education,* which is available from the Government Printing Office, Washington D.C. 20402 for $11 a year.

Descriptors Educational Television, Language Instruction, Questionnaires, Student Attitudes, Surveys.

ED 014 235

Roe, Arnold, and others. *Automated Teaching Methods Using Linear Programs*, University of Southern California, Los Angeles. Report Number UCLA-EngDep-60-105, Pub Date Dec 60, EDRS Price MF $0.50 HC $2.56 62p.

Descriptors Academic Achievement, Audioinstructional Programs, College Students, Probability Theory, Programed Instruction, California, Engineering, Experiments, Los Angeles, Time Factors (Learning).

ED 014 236

Helmke, Guy M. *Emerging Patterns of Instructional Television for California Public Schools*, California State Dept. of Education, Sacramento. Pub Date 66, EDRS Price MF $0.25 HC $1.60 38p.

Descriptors Broadcast Television, Closed Circuit Television, Educational Television, Historical Reviews, Instructional Television, Costs, Equipment Evaluation, California.

ED 014 237

Inventory Report on the Future Uses of Educational Television. Findings of a Conference Sponsored by the Joint Council on Educational Broadcasting and the National Education Association (Washington, D.C., June 20, 1963). Pub Date 20 Jun 63, EDRS Price MF $0.25 HC $0.68 15p.

Descriptors Citizen Participation, Community Attitudes, Educational Television, Evaluation, Multichannel Programming.

ED 014 238

Brown, James W. *Educational Media Institute Evaluation (EMIE) Project-Supplementary Report*, National Education Assn., Washington, D.C. Report Number BR-5-0270, Pub Date Jun 67, Contract OEC-5-16-041, EDRS Price MF $0.25 HC $1.84 44p.

Descriptors Adult Learning, Educational Attitudes, Educational Methods, Institutes (Training Programs), Professional Personnel, Evaluation Methods.

ED 014 239

Adkins, Gale R. *A Study of the Critical Requirements for Directors in Educational Television Stations*, Kansas Univ., Lawrence. Report Number NDEA-VIIA-1360, Report Number BR-6-0430, Pub Date Apr 67, EDRS Price MF $0.75 HC $6.20 153p.

Descriptors Adults, Behavior Patterns, Educational Television, Job Analysis, Television Research.

Occasional Papers Available

Copies of two occasional papers are available from the clearinghouse, while supplies last. One is Joseph Kanner's *The Effectiveness of Color*, which reviews the rather surprising findings on the role of color in instructional film and television, and the other is Fred S. Siebert's *Analysis of University Policy Statements on Instructional Recordings and Their Re-Use*. Both these papers will, after announcement in *Research in Education*, be available from the ERIC Document Reproduction Service.

Series One Papers From ERIC at Stanford

The Series I papers listed here were commissioned by ERIC at Stanford to provide guides to the literature in specific media and technology areas. While limited supplies last, the clearinghouse will be pleased to send copies to those requesting them. In the near future, all the Series I papers will be available on microfiche and in hardcopy from the ERIC Document Reproduction Service, but no orders should be placed with EDRS until after a document is announced in *Research in Education*.

The Series I papers to date:

Ernest R. Hilgard, *A Basic Reference Shelf on Learning Theory.*

Jack V. Edling, *A Basic Reference Shelf on Instructional Media Research.*

James D. MacConnell and Clarke E. Schiller, *A Basic Reference Shelf on Facilities for Instructional Media.*

Henry T. Ingle, *A Basic Reference Shelf on the New Media and Teacher Training.*

Robert Glaser and Mary Louise Marino, *A Basic Reference Shelf on Programed Instruction.*

Series I papers by Edgar Dale and Karl Zinn are planned, and the availability of these will be reported in a future newsletter.

Collecting Microfiche?

Those thinking of starting a microfiche collection should keep in mind the economy involved in placing a standing order for all the ERIC microfiche each month. Ordered separately, each microfiche is 25¢. When a standing order is placed, the price is only 8.4¢.

A valuable survey of available microfiche readers and printers appeared in the Fall 1967 issue of the National Microfilm Association Journal, and reprints of this study, by Tate and Wolf, are available at 50¢ each from the National Microfilm Association, 250 Prince George St., P.O. Box 386, Annapolis, Maryland 21404.

A special sample microfiche is available from ERIC at Stanford, while supplies last, to those not familiar with this new format for packaging information.

* * *

This first issue of *Now Available* was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Although a separate publication, *Now Available* will be distributed along with the clearinghouse *Newsletter* when both come out at about the same time. Any part or all of *Now Available* may be reproduced and distributed, providing credit is given to ERIC at Stanford.

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Price and Pages–The cost of the document in microfiche (MF) and hardcopy (HC) is given, along with its length.

Descriptors–The paragraph of descriptive terms represents the subject matter of the document.

ED 014 871
Carpenter, C.R. and Greenhill, L.P. *An Investigation of Closed-Circuit Television for Teaching University Courses.* Instructional Television Research, Report Number Two. Pennsylvania State Univ., University Park. Pub Date 58, EDRS Price MF $0.50 HC $4.72 116p.
Descriptors: Academic Achievement, Attitudes, Closed Circuit Television, College Instruction, Instructional Television.

ED 014 872
Television and Education, A Bibliography. Television Information Office, New York, N.Y. Pub Date Dec 60, EDRS Price MF $0.25 HC $0.44 9p.
Descriptors: Bibliographies, Colleges, Edcational Television, Instructional Television, Schools.

ED 014 873
Price, John F. *Television Facilities in Higher Education in New York State.* New York State Education Dept., Albany. Pub Date 65, EDRS Price MF $0.25 HC $2.36 57p.
Descriptors: Broadcast Television, Closed Circuit Television, Educational Television, Higher Education, Instructional Television.

ED 014 874
Ryans, D., and others. *Report of Conference Assembled to Consider Recommendations Relative to a Possible Review and Assessment of Research and Dissemination Projects Conducted Under Title VII of the National Defense Education Act of 1958.* System Development Corp., Santa Monica, Calif. Pub Date 20 Nov 61, EDRS Price MF $0.25 HC $0.64 14p.
Descriptors: Conferences, Costs, Educational Research, Federal Programs, Program Evaluation.

ED 014 875
Campbell, Vincent N. *Self-Direction and Programed Instruction for Five Different Types of Learning Objectives. Final Technical Report.* American Inst. for Research in Behavioral Sciences. Pub Date Dec 63, EDRS Price MF $0.25 HC $1.00 25p.
Descriptors: Feasibility Studies, Independent Study, Learning Activities, Learning Motivation, Models.

ED 014 876
Reynolds, James H. and Glaser, Robert. *Repetition and Spaced Review in the Learning of Connected Discourse.* Pittsburgh Univ., Pa., Learning Res. and Dev. Ctr. Pub Date Dec 63, EDRS Price MF $0.25 HC $1.92 46p.
Descriptors: Learning Processes, Programed Instruction, Retention, Teaching Machines, Verbal Learning.

ED 014 877
Glaser, Robert, and others. *Programmed Instruction in the Intact Classroom.* Pittsburgh Univ., Pa., Learning Res. and Dev. Ctr. Pub Date Dec 63, EDRS Price MF $0.25 HC $2.04 49p.
Descriptors: Academic Ability, Grouping (Instructional Purposes), Learning Motivation, Pacing, Programed Instruction.

ED 014 878
An Evaluation of Closed-Circuit Instructional Television in Los Angeles City College and Los Angeles Valley College. Final Report. Los Angeles City Schools, Calif. Pub Date 59, EDRS Price MF $0.25 HC $1.12 26p.
Descriptors: Academic Achievement, Attitudes, Closed Circuit Television, Instructional Television, Junior Colleges.

ED 014 879
Schaefer, Halmuth H. *A Vocabulary Program Using "Language Redundancy."* Pittsburgh Univ., Pa. Pub Date Jan 61, EDRS Price MF $0.25 HC $1.12 26p.
Descriptors: German, Language Research, Languages, Programed Instruction, Redundancy.

ED 014 880
Evans, James Lee, and others. *An Investigation of "Teaching Machine" Variables Using Learning Programs in Symbolic Logic.* Pittsburgh Univ., Pa. Pub Date Dec 60, EDRS Price MF $0.50 HC $3.60 88p.
Descriptors: Feedback, Programed Instruction, Response Mode, Teaching Machines, Time Factors (Learning).

ED 014 881
"This Business of Farming" 1964, A Study of Audience Reactions to a Televised Course of Instruction for Farmers in the Prairie Provinces of Canada. Canadian Broadcasting Corp., Ottawa (Ontario). Pub Date Apr 65, EDRS Price MF $1.50 HC $14.28 355p.
Descriptors: Adult Farmer Education, Attitudes, Interviews, Televised Instruction, Television Viewing.

ED 014 882
Allen, Clarence. *Instructional Television in Music Education. National Center for School and College Television News Supplement Number One.* National Center for School and Coll. Television. Pub Date Jun 66, EDRS Price MF $0.25 HC $0.56 12p.
Descriptors: Conferences, Course Descriptions, Instructional Television, Music Education.

ED 014 883
Instructional Television in Art Education. National Center for School and College Television News Supplement Number Two. National Center for School and Coll. Television. EDRS Price MF $0.25 HC $0.56 12p.
Descriptors: Art Education, Conferences, Course Descriptions, Instructional Television.

ED 014 884
Television in Higher Education–Social Work Education. National Center for School and College Television News Supplement Number Three. National Center for School and Coll. Television. EDRS Price MF $0.25 HC $0.96 22pp.
Descriptors: Conferences, Higher Education, Instructional Television, Professional Education, Social Work.

ED 014 885
Television in Health and Physical Education. National Center for School and College Television News Supplement Number Four.

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National Center for School and Coll. Television. EDRS Price MF $0.25 HC $0.48 10p.
Descriptors: Conferences, Health, Instructional Television, Physical Education.

ED 014 886
Television in Mathematics Education. National Center for School and College Television News Supplement Number Five. National Center for School and Coll. Television. EDRS Price MF $0.25 HC $0.48 10p.
Descriptors: Conferences, Elementary Schools, Instructional Television, Mathematics Education, Secondary Schools.

ED 014 887
Television in Science Education. National Center for School and College Television News Supplement Number Six. National Center for School and Coll. Television. EDRS Price MF $0.25 HC $0.48 10p.
Descriptors: Conferences, Elementary Schools, Instructional Television, Science Education, Secondary Schools.

ED 014 888
Loughary, John W. *Man-Machine Systems in Education.* Pub Date 66. Document not available from EDRS.
Descriptors: Computers, Educational Administration, Instructional Technology, Student Personnel Services, Systems Approach.

ED 014 889
Coon, E. Dean. *A Study in the Development of Cooperative State Leadership in Educational Media.* Final Report. Colorado State Dept. of Education, Denver. Pub Date 66, EDRS Price MF $0.50 HC $3.20 78p.
Descriptors: Audiovisual Instruction, Educational Research, Equipment Utilization, State Officials, State Schools Denver.

ED 014 890
Chorvinsky, Milton. *A Discussion of Educational Technology with Emphasis on Computer-Assisted Instruction.* National Center for Educational Statistics (DHEW). Pub Date 9 May 67, EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: Computer Assisted Instruction, Educational Trends, Historical Reviews.

ED 014 891
Paulson, Casper F., Jr. *An Examination of the Structure and Effectiveness of Slide-Tapes Produced by Rational Analysis and Self-Sequencing Techniques.* Oregon State System of Higher Education, Monmouth. Pub Date Jun 67, EDRS Price MF $0.25 HC $1.44 34p.
Descriptors: Cognitive Processes, Independent Study, Tape Recordings, Teacher Improvement, Visual Stimuli.

ED 014 892
Brown, James W. and Brown, Donald J. *Evaluations of Summer 1966 NDEA Institutes for Educational Media Specialists and School Library Personnel.* National Education Assn., Washington, D.C. EDRS Price MF $0.50 HC $4.64 114p.
Descriptors: Adults, Federal Programs, Instructional Media, Participant Characteristics, Summer Institutes.

ED 014 893
Television in Foreign Language Education. National Center for School and College Television News Supplement Number Seven. National Center for School and Coll. Television. EDRS Price MF $0.25 HC $0.48 10p.
Descriptors: Conferences, French, German, Instructional Television, Spanish.

ED 014 894
Evans, James L. and others. *The Ruleg System for the Construction of Programmed Verbal Learning Sequences.* Pittsburgh Univ., Pa. Pub Date Aug 60, EDRS Price MF $0.25 HC $1.04 24p.
Descriptors: Program Content, Program Design, Program Development, Programed Instruction, Systems Approach.

ED 014 895
Glaser, Robert. *Principles and Problems in the Preparation of Programed Learning Sequences.* Pittsburgh Univ., Pa. Pub Date Sep 60, EDRS Price MF $0.25 HC $1.96 47p.
Descriptors: Conceptual Schemes, Program Content, Program Design, Program Development, Programed Instruction.

ED 014 896
Cues and Clues in the Creative Classroom. Michigan St. Board of Education, Lansing. Pub Date 66, EDRS Price MF $0.25 HC $1.40 33p.
Descriptors: Charts, Classroom Materials, Creative Thinking, In-service Teacher Education, Instructional Materials.

ED 014 897
Nathanson, Norbert H. *"Once Upon a Day," A Series of Videotaped Television Programs for Children.* New York State Education Dept., Albany. Pub Date 65, EDRS Price MF $0.25 HC $0.96 22p.
Descriptors: Educational Television, Elementary School Students, Program Descriptions.

ED 014 898
Jorgensen, Erling S. *TV for Montana Education, Report of the Montana Educational Television Committee.* Montana Educational Television Committee, Billings. Pub Date Jun 62, EDRS Price MF $0.50 HC $3.68 90p.
Descriptors: Committees, Educational Television, Instructional Television, Schools, State Action.

ED 014 899
Telecourse Catalog 1967. National Center for School and Coll. Television. EDRS Price MF $0.50 HC $3.08 75p.
Descriptors: Catalogs, Course Descriptions, Elementary Education, Secondary Education.

ED 014 900
Chu, Godwin C. and Schramm, Wilbur. *Learning from Television, What the Research Says.* Stanford Univ., Calif., Inst. for Communic. Res. Pub Date Dec 67, EDRS Price MF $1.00 HC $8.96 222p.
Descriptors: Attitudes, Instructional Television, Learning, Research Reviews (Publications), Students.

ED 014 901
Ragsdale, Ronald G. *The Learning Research and Development Center's Computer Assisted Laboratory.* Pittsburgh Univ., Pa., Learning Res. and Dev. Ctr. Pub Date Feb 66, EDRS Price MF $0.25 HC $0.32 6p.
Descriptors: CAI, Social Sciences.

ED 014 902
Mild, J. Donald, and Doughty, Donald D. *A Communications System for Higher Education. Final Report.* California State Coll., Dominguez Hills. Pub Date Aug 67, EDRS Price MF $0.50 HC $4.76 117p.
Descriptors: Administrative Organization, Data Processing, Higher Education, Information Retrieval Calif. State Coll., Information Storage, Management.

ED 014 903
Teaching Machines and Programmed Learning in the Soviet Bloc–A Survey of the Published Literature, 1962-1963. Joint Publication Research Service, Washington, D.C. Pub Date 27 Nov 64, Document not available from EDRS.
Descriptors: Cybernetics, Programed Instruction, Programed Texts, Research Reviews, Teaching Machines.

ED 014 904
Sandefur, J.T. and others. *Observation and Demonstration in Teacher Education by Closed Circuit Television and Video Tape Recordings.* Kansas State Teachers College, Emporia. Pub Date Jul 67, EDRS Price MF $0.50 HC $4.88 120p.
Descriptors: Adults, Feasibility Studies, Student Attitudes, Teacher Education, Video Tape Recordings.

ED 014 905
Chapman, Dave and others. *Design for ETV–Planning for Schools with Television.* Educational Facilities Labs. Inc., New York, N.Y. Pub Date 60, EDRS Price MF $0.50 HC $4.08 100p.
Descriptors: Classroom Furniture, Costs, Educational Equipment, Facility Expansion, School Planning.

ED 014 906
Finn, James D. and others. *A Study of the Concentration of Educational Media Resources to Assist in Certain Education Programs of National Concern. Part II–Educational Media and Vocational Education. Final Report.* Educational Media Council Inc., Washington, D.C. Pub Date 31 May 67, EDRS Price MF $1.00 HC $8.60 213p.
Descriptors: Curriculum Development, Federal Programs, Information Dissemination, Instructional Media, Vocational Education.

ED 014 907
Fleming, Malcolm L. *Instructional Illustrations–A Survey of Types Occurring in Print Materials for Four Subject Areas.* Indiana Univ., Bloomington. Pub Date Nov 66, EDRS Price MF $1.75 HC $17.52 436p.
Descriptors: Comparative Analysis, Illustrations, Taxonomy, Textbook Evaluation.

ED 014 908
Woodruff, Arnold Bond and Shimabukuro, Shinkichi. *Studies on Individual Differences Related to Performance on Programed Instruction.* Northern Illinois Univ., De Kalb. Pub Date 67, EDRS Price MF $0.50 HC $3.36 82p.
Descriptors: Academic Achievement, General Science, Grade 8, Individual Differences, Programed Instruction.

ED 014 909
Moore, J. William and others. *Motivational Variables in Pro-*

grammed Learning. The Role of Need Achievement, Fear of Failure, and Student Estimate of Achievement as a Function of Program Difficulty. Bucknell Univ., Lewisburg, Pa. Pub Date May 65, EDRS Price MF $0.50 HC $3.24 79p.

Descriptors: Academic Achievement, Grouping (Instructional Purposes), Motivation, Program Content, Programed Instruction.

ED 014 910

National Conference for State Department of Education Personnel on Educational Television, A Summary Report (Atlanta, May 10-12, 1966). Georgia State Dept. of Education, Atlanta. Pub Date 12 May 66, EDRS Price MF $0.75 HC $8.28 205p.

Descriptors: Administrative Organization, Conference Reports, Educational Television, State Agencies, State Officials.

ED 014 911

Black, Harvey B. *Relevant and Irrelevant Pictorial Color Cues in Discrimination Learning–Manipulation of Cue Relevance, Instructional Stimuli, Practice Procedures and Intervals, Shape Discriminability, Test Procedures and Age of Subject.* Indiana Univ., Bloomington. Pub Date May 67, EDRS Price MF $0.50 HC $3.88 95p.

Descriptors: Age Differences, Discrimination Learning, Paired Associate Learning, Pictorial Stimuli, Prompting.

ED 014 912

Smith, Martin E. and Seibert, Warren F. *Prediction of Effects with Selected Characteristics of Linear Programmed Instruction. Final Report.* Purdue Univ., Lafayette, Ind. Pub Date Dec 66, EDRS Price MF $0.75 HC $5.36 132p.

Descriptors: Factor Analysis, Linear Programing, Programed Instruction, Response Mode, Verbal Learning.

ED 014 913

Schwarzwalder, John C. *An Investigation of the Relative Effectiveness of Certain Specific TV Techniques on Learning. Final Report.* Twin City Area Educational TV Corp., St. Paul, Minn. Saint Paul Public Schools, Minn. Pub Date 60, EDRS Price MF $0.25 HC $2.32 56p.

Descriptors: Academic Ability, Aural Stimuli, Educational Television, Reinforcement, Visual Stimuli.

ED 014 914

Campbell, Vincent N. and others. *Effects of Mathematical Ability, Pretraining, and Interest on Self-Direction in Programed Instruction.* American Inst. for Research in Behavioral Sciences. Pub Date Oct 63, EDRS Price MF $0.25 HC $0.84 19p.

Descriptors: Academic Ability, Independent Study, Linear Programing, Programed Instruction.

ED 014 915

Campbell, Vincent N. and Bivens, Lyle W. *Self-Direction in Programed Geography Instruction.* American Inst. for Research in Behavioral Sciences. Pub Date Nov 63, EDRS Price MF $0.25 HC $1.04 24p.

Descriptors: Independent Study, Learning Activities, Linear Programing, Motivation Techniques, Programed Instruction.

ED 014 916

Campbell, Vincent N. *Learning–From R-M Theory to Educational Planning.* American Inst. for Research in Behavioral Sciences. Pub Date Nov 63, EDRS Price MF $0.25 HC $1.80 43p.

Descriptors: Cognitive Processes, Educational Strategies, Learning Motivation, Learning Theories, Models.

ED 014 917

Berliner, David C. and others. *Memory Span and Self-Direction in Serial Learning of Names.* American Inst. for Research in Behavioral Sciences. Pub Date Dec 63, EDRS Price MF $0.25 HC $0.52 11p.

Descriptors: Feasibility Studies, Independent Study, Learning Processes, Retention Studies, Rote Learning.

ED 015 640

Instructional Television Research Reports. Naval Training Device Ctr., Orlando, Fla. Pub Date 01 Jun 56, EDRS Price MF $1.75 HC $16.40 408p.

Descriptors: Experiments, Instructional Television, Military Personnel, Surveys.

ED 015 641

Lenihan, Kenneth J. and Menzel, Herbert. *The Utilization of Classroom Television.* Columbia Univ., New York, Bur. of Appl. Soc. Res. Pub Date Jul 63, EDRS Price MF $1.00 HC $9.44 234p.

Descriptors: Equipment Utilization, Field Interviews, Instructional Television, Questionnaires, Television Viewing.

ED 015 642

Television for Higher Education in Colorado–A Five-Year Plan. Association of State Inst. of Higher Educ. in Colo. Pub Date Jul 64, EDRS Price MF $0.50 HC $4.40 108p.

Descriptors: Educational Facilities, Educational Television, Expenditures, Feasibility Studies, Higher Education.

ED 015 643

Foster, J. Owen. *Using Audio-Visual Materials in the Elementary Classroom.* Indiana State Dept. Public Instr., Indianapolis. Pub Date 59, EDRS Price MF $0.75 HC $7.08 175p.

Descriptors: Audiovisual Aids, Educational Improvement, Elementary Schools.

ED 015 644

Gliessman, David and Williams, Don G. *Inter-University Film Project–The Production of Five Stimulus Films to Be Used in Teacher Education. Final Report.* Missouri Univ., Kansas City. Pub Date 17 Jan 67, EDRS Price MF $0.50 HC $2.88 70p.

Descriptors: Evaluation, Instructional Films, Problem Solving, Teacher Education, Teaching Guides.

ED 015 645

Recommendations for Reporting the Effectiveness of Programmed Instruction Materials. American Educational Research Assn., Wash., D.C. American Psychological Assn., Washington, D.C. National Education Assn., Washington, D.C. Pub Date Oct 65, EDRS Price MF $0.25 HC $1.12 26p.

Descriptors: Program Effectiveness, Program Evaluation, Program Guides, Programed Instruction, Research Utilization.

ED 015 646

Educational Media in Transition. Educational Media Council Inc., New York, N.Y. Pub Date Oct 63, EDRS Price MF $0.25 HC $2.24 54p.

Descriptors: Educational Improvement, Information Dissemination, Instructional Media, Instructional Staff, Media Technology.

ED 015 647

Harcleroad, Fred and others. *Learning Resources for Colleges and Universities.* California State Coll., Hayward. Pub Date Sep 64, EDRS Price MF $0.75 HC $7.04 174p.

Descriptors: Audiovisual Centers, Colleges, Digital Computers, Library Services, Universities.

ED 015 648

Siebert, Fred S. *Report on Copyrights, Clearances, and Rights of Teachers in the New Educational Media.* Michigan St. Univ., East Lansing. Pub Date 01 Aug 63, EDRS Price MF $0.50 HC $4.00 98p.

Descriptors: Copyrights, Instructional Materials, Instructional Media, Legal Problems.

ED 015 649

Great Plains Regional Instructional Television Library Demonstration Project. Summary Report. Nebraska Univ., Lincoln. EDRS Price MF $0.25 HC $1.92 46p.

Descriptors: College Curriculum, Elementary Education, Instructional Television, Secondary Education, Special Libraries.

ED 015 650

Eppenstein, Walter. *The Overhead Projector in the Physics Lecture.* Rensselaer Polytechnic Inst., Troy, N.Y. Pub Date Dec 61, EDRS Price MF $0.50 HC $2.60 63p.

Descriptors: College Instruction, Lecture, Overhead Projectors, Physics.

ED 015 651

Fanning, Robert J. *Programed Instruction Project. Annual Report, 1964-65.* New York City Board of Education, Brooklyn, N.Y. EDRS Price MF $0.50 HC $3.08 75p.

Descriptors: Annual Reports, Elementary Schools, Evaluation, Programed Instruction, Reading Difficulty.

ED 015 652

Fanning, Robert J. *Programed Instruction Project. Annual Report, 1965-66.* New York City Board of Education, Brooklyn, N.Y.

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Document not available from EDRS.
Descriptors: Annual Reports, Elementary Schools, Evaluation, Programed Instruction, Reading Difficulty.

ED 015 653
Farrer-Brown, Leslie. *Report of the International Working Group on Educational Television, (London, November 22-27, 1964).* Centre for Educational Television Overseas. Pub Date 64, EDRS Price MF $0.25 HC $1.60 38p.
Descriptors: Conference Reports, Educational Television, International Programs, Organization, Personnel.

ED 015 654
Geis, George L. and Nielsen, Susan. *Answer Observing in Programmed Instruction–II. The Effect of Incentive on Student Performance Within and After Programmed Instruction.* Michigan Univ., Ann Arbor. EDRS Price MF $0.25 HC $0.96 22p.
Descriptors: Learning Motivation, Programed Instruction, Reinforcers.

ED 015 655
Wittich, Walter Arno and Schuller, Charles Francis. *Audiovisual Materials, Their Nature and Use. Fourth Edition. Exploration Series in Education.* Pub Date 67, Document not available from EDRS.
Descriptors: Audiovisual Aids, Classroom Materials, Effective Teaching, Equipment Utilization.

ED 015 656
Wyman, Raymond. *Feasibility Study of a New Mobile Multi-Media Service for Have-Not School Districts. Final Report.* Massachusetts Univ., Amherst, Sch. of Education. Pub Date Mar 67, EDRS Price MF $0.50 HC $2.56 62p.
Descriptors: Mobile Laboratories, Rural Areas.

ED 015 657
Corle, Clyde G. *Mathematics Teaching Behavior Changes Made by Intermediate Grade Teachers During a 15-Week Period of Instruction by Educational Television. Final Report.* Pennsylvania State Univ., University Park. Pub Date Mar 67, EDRS Price MF $0.50 HC $3.44 84p.
Descriptors: Educational Television, Elementary School Mathematics, Inservice Teacher Education, Observation, Rating Scales.

ED 015 658
Gay, Robert T. *An Evaluation of the Effect of an Immediate Feedback Device Used with Typical College Classroom Tests. Final Report.* San Diego State Coll., Calif. Pub Date Jul 67, EDRS Price MF $0.25 HC $1.56 37p.
Descriptors: Achievement Tests, Attitudes, Closed Circuit Television, Experiments, Feedback.

ED 015 659
Master Television Antenna System. Rhode Island State Dept. of Education, Providence. EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: Educational Television, Elementary Schools, Equipment Standards, Equipment Utilization, Secondary Schools.

ED 015 660
Hubbard, Richard D. *Proceedings of the New York State Convocation on Educational Communications (New York City, November 22-25, 1964).* New York State Education Dept., Albany, New York State Audio Visual Council, East Meadow, New York State Educational Radio and TV Assn. Pub Date 65, EDRS Price MF $1.50 HC $14.20 353p.
Descriptors: Educational Television, Instructional Films, State Departments of Education, Teaching Machines.

ED 015 661
Hubbard, Richard D. *Proceedings of the New York State Convocation on Educational Communications (Albany, November 20-22, 1963).* New York State Education Dept., Albany, New York State Audio Visual Council, East Meadow, New York State Educational Radio and TV Assn. Pub Date 64, EDRS Price MF $1.00 HC $9.64 239p.
Descriptors: Conference Reports, Electronic Classrooms, Equipment Evaluation, Instructional Media, Programed Instruction.

ED 015 662
Using Television for the Improvement of Urban Life–A Project Sponsored by the National Education Association. National Education Assn., Washington, D.C. EDRS Price MF $0.25 HC $0.44 9p.
Descriptors: Community Education, Community Problems, Educational Television, Urban Education.

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ED 015 663
Caldwell, Harold. *A Guide to Educational Television.* Kansas State Dept. of Public Instr., Topeka. Pub Date 66, EDRS Price MF $0.25 HC $1.12 26p.
Descriptors: Costs, Educational Television, Equipment Utilization, Student Attitudes, Teacher Attitudes.

ED 015 664
Caldwell, Harold. *Personnel for a Complete Instructional Program–Printed and Non-Printed Materials–Library and Audiovisual Services–for Elementary and Secondary Schools.* Kansas State Dept. of Public Instr., Topeka. Pub Date 64, EDRS Price MF $0.25 HC $0.60 13p.
Descriptors: Audiovisual Programs, Elementary Schools, Instructional Programs, Library Services, Personnel Needs, Secondary Schools.

ED 015 665
Harold, John W. *Teaching Samoans to Teach Themselves.* American Samoa Dept. of Educ. Pub Date Sep 66, EDRS Price MF $0.25 HC $0.92 21p.
Descriptors: Elementary Schools, English (Second Language), Foreign Culture, High Schools, Instructional Television.

ED 015 666
Page, Ray. *Illinois Journal of Education Illinois Schools and Educational Television.* Illinois State Off. Supt. Pub. Instr., Springfield. Pub Date May 66, Document Not Available From EDRS.
Descriptors: Educational Television, Instructional Television, State Legislation, State Programs.

ED 015 667
Creshkoff, Lawrence. *Television and the Continuing Education of Teachers, A Feasibility Study of the Potential of Network Television for Dissemination of Educational Research Information Final Report.* Columbia Univ., New York. Teachers College. Pub Date Aug 67, EDRS Price MF $0.50 HC $4.56 112p.
Descriptors: Educational Innovation, Film Production, Instructional Television, Learning Motivation, Questionnaires.

ED 015 668
Anderson, James A. *A Comparison of the Pictorial, Print, and Aural Media on Connotative Meaning. Final Report.* Wisconsin State Univ., Oshkosh. Pub Date Aug 67, EDRS Price MF $0.50 HC $3.12 76p.
Descriptors: Aural Stimuli, Pictorial Stimuli, Rating Scales, Statistical Analysis, Verbal Stimuli.

ED 015 669
Belforte, John. *Exploring Ways to Integrate Audiovisual Media with Elementary School Instructional Practices.* Jefferson Elementary School Dist., Daly City, Cal. Pub Date 31 Aug 66, EDRS Price MF $0.50 HC $2.80 68p.
Descriptors: Attitudes, Curriculum Development, Instructional Media, Questionnaires, Sociometric Techniques.

ED 015 670
Klugman, Edgar. *Project Ear, Educational Amateur Radio.* Harrison Ave. Elementary School, Harrison, N.Y. Pub Date Apr 65, EDRS Price MF $0.25 HC $0.68 15p.
Descriptors: Educational Radio, Elementary School Students, Telephone Communication Systems, Harrison, New York.

ED 015 671
Berman, Mark Laurence. *Summary of Research in Experimental Education.* Arizona State Univ., Tempe. Pub Date Aug 67, EDRS Price MF $0.25 HC $0.80 18p.
Descriptors: Culturally Disadvantaged, Dropouts, Learning Difficulties, Performance Factors, Programed Instruction.

ED 015 672
Equipment Guide for Classroom Television. Sylvania Electric Products Inc., New York, N.Y. EDRS Price MF $0.25 HC $1.52 36p.
Descriptors: Educational Television, Equipment Manufacturers, Equipment Utilization, Glossaries.

ED 015 673
Reid, J. Christopher, and MacLennan, Donald W. *Research in Instructional Television and Film.* Office of Education (DHEW), Washington, D.C. Pub Date 67, Document Not Available From EDRS.
Descriptors: Abstracts, Experiments, Instructional Films, Instructional Television, Literature Reviews.

ED 015 674
Edling, Jack V. *A Basic Reference Shelf on Instructional Media Research, Using Educational Media Guides to the Literature, Series I.* Stanford Univ., Calif., Inst. for Communic. Res. Pub Date Nov 67, EDRS Price MF $0.25 HC $0.56 12p.
Descriptors: Annotated Bibliographies, Instructional Media, Media Research, Reference Materials.

ED 015 675
Kanner, Joseph H. *The Instructional Effectiveness of Color in Television–A Review of the Evidence. Using Educational Media–Guides to the Literature, Series I.* Stanford Univ., Calif., Inst. for Communic. Res. Pub Date Jan 68, EDRS Price MF $0.25 HC $0.52 11p.
Descriptors: Equipment Utilization, Instructional Television, Learning, Research Reviews (Publications).

ED 015 676
Silvern, Leonard C. *Systems Analysis and Synthesis Applied to Occupational Instruction in Secondary Schools.* Educational and Training Consultants Co. EDRS Price MF $0.50 HC $4.32 106p.
Descriptors: Feasibility Studies, Models, Secondary Schools, Systems Approach, Vocational Education.

ED 015 677
Parnes, Sidney J. *Self-Instructional Course in Applied Imagination.* State Univ. of N.Y., Buffalo. Pub Date 65, EDRS Price MF

$5.75 HC $63.92 1,596p.
Descriptors: Imagination, Programed Texts.

ED 015 678
Wodtke, Kenneth H. and others. *Scrambled Versus Ordered Sequencing in Computer-Assisted Instruction.* Pennsylvania State Univ., University Park. Pub Date Jul 67, EDRS Price MF $0.50 HC $4.52 111p.
Descriptors: Ability, Analysis of Variance, Computer Assisted Instruction, Sequential Approach, Time Factors (Learning).

ED 015 679
Roe, Arnold. *Branching Programs in Automated Instruction–A Simplified Format.* California Univ., Los Angeles. Pub Date Aug 61, EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: Branching, Evaluation, Pacing, Programed Instruction, Time Factors (Learning).

ED 015 680
Booker, C.A., Jr. and others. *Graphic Input Tablets for Programmed Instruction.* Pittsburgh Univ., Pa., Learning Res. and Dev. Ctr. Pub Date Aug 66, EDRS Price MF $0.25 HC $1.00 23p.
Descriptors: Computer Assisted Instruction, Educational Equipment, Electronic Equipment, Programed Instruction, Teaching Machines.

ED 015 681
Wheeler, Robert C. *Elements of an Effective Audiovisual Program, A Handbook for Wisconsin Educators.* Wisconsin State Dept. of Pub. Instr., Madison. Pub Date 66, EDRS Price MF $0.50 HC $2.60 63p.
Descriptors: Audiovisual Programs, Budgeting, Educational Facilities, Equipment Utilization, State Programs.

ED 015 682
National Conference on Instructional Materials for State Department of Education Personnel (Austin, May 22-25, 1966). Texas Education Agency, Austin. Pub Date 66, EDRS Price MF $0.50 HC $2.80 68p.
Descriptors: Conference Reports, Instructional Media, Library Services, State Departments of Education, State Standards.

ED 015 683
Educational Television in Britain. Central Office of Information, London (England). Pub Date Jan 67, EDRS Price MF $0.25 HC $0.68 15p.
Descriptors: Broadcast Television, Closed Circuit Television, Colleges, Educational Television, Schools.

ED 015 684
Wade, Warren L., and Wade, Serena E. *A Report of the National Conference on the Long-Range Financing of Educational Television Stations (2D, Washington, D.C., March 5-7, 1967).* National Assn. of Educational Broadcasters. Pub Date May 67, EDRS Price MF $0.50 HC $4.80 118p.
Descriptors: Communication Satellites, Copyrights, Educational Television, Federal Legislation, Financial Needs.

ED 015 685
Gliessman, David, and Williams, Don G. *Inter-University Film Project–Developing Titles, Plan of Utilization, and Plan of Evaluation for a Series of Problem-Centered, Open-Ended Films to be Used in Teacher Training.* Inter-Univ. Film Group. Pub Date 28 Jul 65, EDRS Price MF $0.50 HC $4.68 115p.
Descriptors: Evaluation, Instructional Films, Problem Solving, Teacher Education, Teaching Guides.

ED 015 686
Gagne, Robert M. *The Analysis of Instructional Objectives. Draft.* Pub Date 26 Mar 63, EDRS Price MF $0.25 HC $2.12 51p.
Descriptors: Autoinstructional Programs, Educational Objectives, Learning Theories, Literature Reviews, Programed Instruction.

ED 015 687
Drews, Elizabeth Monroe. *Process and Product–A Reassessment of Students and Program. The Creative Intellectual Style in Gifted Adolescents, Report III. Final Report.* Michigan St. Univ., East Lansing. Pub Date 66, EDRS Price MF $1.25 HC $12.88 320p.
Descriptors: Gifted.

ED 016 375
Skornia, Harry J. *Television, Radio and Films–A Survey.* Pub Date Apr 65, EDRS Price MF $0.50 HC $2.72 66p.
Descriptors: Educational Research, Research Methodology, Research Needs.

ED 016 376
Hocking, Elton. *Language Laboratory and Language Learning.* National Education Assn., Washington, D.C. Pub Date Apr 64, Document Not Available From EDRS.
Descriptors: Audiolingual Methods, Instructional Technology, Language Instruction, Language Laboratory Equipment, Language Laboratory Use.

ED 016 377
Mitzel, Harold E. *The Development and Presentation of Four College Courses by Computer Teleprocessing. Final Report.* Pennsylvania State Univ., University Park. Pub Date 30 Jun 67, EDRS Price MF $1.50 HC $15.92 396p.
Descriptors: College Curriculum, College Students, Computer Assisted Instruction, Course Descriptions, Student Reaction.

ED 016 378
Jaquith, Charles E. and others. *An Experimental Study Utilizing Closed Circuit Television in an Industrial Arts Team Teaching Program. Final Report.* Kenosha Public Schools, Wis. Pub Date 23 Aug 67, EDRS Price MF $0.50 HC $3.32 81p.
Descriptors: Closed Circuit Television, Industrial Education, Mechanical Skills, Teacher Evaluation, Team Teaching.

ED 016 379
Hitchcock, Arthur A. *Guidance and the Utilization of New Educational Media, The Report of a National Conference (Madison, March 11-14, 1962).* American Personnel and Guidance Assn., Wash., D.C. Pub Date 01 Aug 67, EDRS Price MF $1.25 HC $11.32 281p.
Descriptors: Communication Problems, Counseling, Filmstrips, Guidance, Instructional Media.

ED 016 380
Ripple, Richard E. and others. *Learner Characteristics and Instructional Mode–The Relationship of Anxiety, Compulsivity, Creativity, and Exhibitionism to Success in Learning from Programed and Conventional Instruction. Final Report.* Cornell Univ., Ithaca, N.Y. Pub Date Jul 67, EDRS Price MF $1.25 HC $11.28 280p.
Descriptors: Analysis of Variance, Experiments, Individual Characteristics, Programed Instruction.

ED 016 381
Hershberger, Wayne A., and Trantina, Paul R. *Individualizing Instruction for Varying Levels of Knowledge. Final Report.* Northern Illinois Univ., De Kalb. Pub Date Aug 67, EDRS Price MF $0.75 HC $5.24 129p.
Descriptors: Feedback, Individualized Programs, Programed Instruction, Time Factors (Learning), Transfer of Training.

ED 016 382
Whittich, Walter A. and others. *Audio-Visual Education–A Televised Course of Instruction. Revised Edition.* Wisconsin Univ., Madison. Pub Date 61, Document Not Available From EDRS.
Descriptors: Audiovisual Aids, Correspondence Courses, Elementary School Teachers, Study Guides, Televised Instruction.

ED 016 383
Brown, James W., and Aubrey, Ruth H. *New Media and Changing Educational Patterns, A Summary of the Preparations for, Presentations, and Group Reports of the New Media Workshop (Tahoe City, California, August 1-7, 1965).* California State Dept. of Education, Sacramento. Pub Date 66, EDRS Price MF $0.50 HC $3.88 95p.
Descriptors: Audiovisual Instruction, Curriculum Planning, Instructional Media, Library Instruction, Workshops.

ED 016 384
Oxhandler, Eugene K., and Christen, Fred L. *A Computer Simulation of a Statewide Film Library Network–A Feasibility Study for Actual Operation. Final Report.* Syracuse Univ., N.Y. Pub Date Sep 66, EDRS Price MF $0.25 HC $2.36 57p.
Descriptors: Computers, Estimated Costs, Feasibility Studies, Instructional Films, Library Surveys.

ED 016 385
McMurry, Glenn and others. *Film Catalog. University of Southern California, 1965-66.* University of Southern California, Los Angeles. Audio-Visual Education Assn. of California. EDRS Price MF $0.75 HC $5.68 140p.
Descriptors: Catalogs, Films.

ED 016 386
Cripwell, Kenneth K.R. *Teaching Adults by Television, A Report of an Experiment in the Teaching of Elementary English and Arithmetic to Adult Africans on the Copperbelt, Zambia, 1963-1965.* Rhodesia Univ. Coll., Salisbury. Pub Date 66, EDRS Price MF $0.75 HC $5.56 137p.
Descriptors: Adult Basic Education, Closed Circuit Television, English (Second Language), Inservice Teacher Education, Teaching Methods.

ED 016 387
Berman, Mark L. *Some Considerations in the Education of Indigenous Groups in the Southwest.* System Development Corp., Santa Monica, Calif. Pub Date 19 Jul 65, EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: American Indians, Cultural Environment, Educational Improvement, Programed Instruction, Spanish Americans.

ED 016 388
Tri-State Regional Leadership Planning Conference for the Dissemination of Information About the More Effective Uses of the New Educational Media (Nashville, August 10-12, 1959). Final Report. National Education Assn., Washington, D.C. EDRS Price MF $0.50 HC $4.00 98p.
Descriptors: Audiovisual Instruction, Conference Reports, Information Dissemination, Instructional Media, State Action.

ED 016 389
Wiens, Jacob H. *A Comparative Study of Video Tape Recordings.* Wiens Electronic Labs., Woodside, Calif. California State Dept. of Gen. Services, Sacramento. Pub Date 20 Oct 66, EDRS Price MF $0.50 HC $4.08 100p.
Descriptors: Comparative Testing, Equipment Evaluation, Equipment Manufacturers, Instructional Television, Video Tape Recordings, Educational Equipment, Kinescope Recordings, Schools, Tape Recorders.

ED 016 390
Proceedings of the Conference on Instructional Methods and Teacher Behavior (Berkeley, November 21-22, 1966). Far West Lab. for Educational Res. and Dev. EDRS Price MF $0.25 HC $2.36 57p.
Descriptors: Conference Reports, Educational Researchers.

ED 016 391
Lund, Victor E. *The Evaluation of Electronic Self-Instruction on Piano Keyboard. Final Report.* Oregon State System of Higher Education, Monmouth. Pub Date Aug 66, EDRS Price MF $0.25 HC $2.24 54p.
Descriptors: Electromechanical Aids, Feedback, Mechanical Skills, Music Techniques, Teacher Education.

ED 016 392
Martin, John R. *Closed-Circuit Television as a Teaching Aid.* Case Inst. of Tech., Cleveland, Ohio. Pub Date 01 Aug 57, EDRS Price MF $0.25 HC $0.64 14p.
Descriptors: Closed Circuit Television, Demonstrations (Educational), Educational Television, Equipment Utilization, Technology.

ED 016 393
Hendershot, Carl H. *Programmed Learning—A Bibliography of Programs and Presentation Devices. Fourth Edition.* Pub Date 67, Document Not Available From EDRS.
Descriptors: Bibliographies, Costs, Course Descriptions, Equipment Manufacturers, Programed Instruction.

ED 016 394
Wigren, Harold E. and others. *A Survey of Instructional Closed-Circuit Television 1967.* National Education Assn., Washington, D.C. Pub Date 20 Jul 67, EDRS Price MF $1.00 HC Not Available From EDRS 203p.
Descriptors: Closed Circuit Television, Equipment Utilization, Instructional Television, National Surveys, Schools.

ED 016 395
National Audio Tape Catalog. National Education Assn., Washington, D.C. Pub Date 67, EDRS Price MF $0.75 HC Not Available From EDRS 131p.
Descriptors: Catalogs, Instructional Materials, Tape Recordings.

ED 016 396
Wilson, Roy K. and others. *Technology in Education. Education U.S.A. Special Report.* National School Public Relations Assn., Wash., D.C. Pub Date 67, EDRS Price MF $0.25 HC Not Available From EDRS 27p.
Descriptors: Computer Assisted Instruction, Disadvantaged Environment, Educational Innovation, Instructional Technology, Student Teacher Relationship.

ED 016 397
Joyce, Bruce R. *Man, Media, and Machines - The Teacher and his Staff.* National Education Assn., Washington, D.C. Pub Date 67, EDRS Price MF $0.25 HC Not Available From EDRS 28p.
Descriptors: Individualized Programs, Instructional Materials Centers, Instructional Media, School Organization, Team Teaching.

ED 016 398
Kaupe, Arthur F., Jr. *Operating Software for a Computer-Based Instruction System.* Pittsburgh Univ., Pa., Learning Res. and Dev. Ctr. Pub Date 10 Mar 66, EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: Computer Assisted Instruction, Digital Computers.

ED 016 399
Geddes, L.A. and others. *A Closed-Circuit Data Broadcast System.* EDRS Price MF $0.25 HC $0.68 15p.
Descriptors: Closed Circuit Television, Demonstrations (Educational), Laboratory Techniques, Medical Students.

ED 016 400
Allen, William H. *Visual and Audio Presentation in Machine Programed Instruction. Final Report.* University of Southern California, Los Angeles. Pub Date Jan 67, EDRS Price MF $1.00 HC $9.24 229p.
Descriptors: Experiments, Individual Differences, Program Content, Programed Instruction, Research Design.

ED 016 401
Bivens, Lyle W. and others. *Self-Direction in Programed Instruction—Effects on Learning in Low-Ability Students.* American Inst. for Research in Behavioral Sciences. Pub Date Jul 63, EDRS Price MF $0.25 HC $2.00 48p.
Descriptors: Independent Study, Low Ability Students, Programed Instruction, Questionnaires, Retention.

ED 016 402
Webb, Neil J. *Innovation in Student Discussion Related Procedures.* Pub Date 02 Sep 66, EDRS Price MF $0.25 HC $0.92 21p.
Descriptors: College Students, Group Discussion, Independent Study, Learning Motivation, Self Directed Classrooms.

ED 016 403
Medved, Eva, and Sullivan, Joyce A. *An Experimental Study of Televised Food Demonstrations to Determine the Effectiveness of Presentation Methods.* Kent State Univ., Ohio. Pub Date Sep 66, EDRS Price MF $0.25 HC $0.20 3p.
Descriptors: Attitudes, Foods Instruction, Laboratory Techniques, Televised Instruction, Test Reliability.

ED 016 404
Braum, Cyril M. and others. *A National Policy for Educational Television.* Office of Education (DHEW), Washington, D.C. Pub Date Dec 61, EDRS Price MF $0.25 HC $0.64 14p.
Descriptors: Educational Improvement, Educational Television, Estimated Costs, Federal Programs, Personnel Needs.

ED 016 405
Rodgers, William A., and Gariglio, Lawrence M. *Toward a Computer Based Instructional System.* Saginaw Township Community Schools, Mich. EDRS Price MF $0.50 HC $3.44 84p.
Descriptors: Computer Assisted Instruction, Educational Environment, Individualized Programs, Instructional Innovation, Instructional Programs.

ED 016 406
Brown, Donald J., and Brown, James W. *Effects of Special Media Institute Programs Upon the Behavior of Title XI NDEA Institute Directors (English, History, Geography, Reading, Modern Foreign Languages, and School Library Personnel). Final Report.* National Education Assn., Washington, D.C. Pub Date Oct 66, EDRS Price MF $0.50 HC $3.08 75p.
Descriptors: Administrative Personnel, Behavior Development, Institutes (Training Programs), Instructional Media, Media Technology.

ED 016 407
Nuss, Eugene M., and Rookey, Ernest J. *A Demonstration Model of a Means to Disseminate Advancements in Instructional Uses of Educational Media. Final Report.* Pennsylvania State Dept. of Public Instruction. Pub Date Sep 66, EDRS Price MF $0.75 HC $6.24 154p.
Descriptors: Experiments, Information Dissemination, Instructional Media, Statistical Analysis, Teacher Behavior.

ED 016 408
Buch, John N. *An Experimental Project to Measure Certain Facets of Language Growth for High School Students in Beginning French When Variations of Language Laboratory Equipment Are*

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Utilized In the Instructional Process. Final Report. Easton Area Joint High School System, Pa. EDRS Price MF $0.25 HC $1.68 40p.

•Descriptors: Audio Equipment, French, Language Laboratories, Tape Recordings.

ED 016 409

Ely, Donald P. *The Changing Role of the Audio-Visual Process in Education - A Definition and a Glossary of Related Terms.* National Education Assn., Washington, D.C. Pub Date 63, EDRS Price MF $1.00 HC $10.68 265p.

Descriptors: Audiovisual Communication, Audiovisual Instruction, Glossaries, Instructional Technology.

ED 016 410

Creative Teaching with Tape. Minnesota Mining and Manufacturing Co., St. Paul. Document Not Available From EDRS.

Descriptors: Classroom Techniques, Creative Teaching, Equipment Manufacturers, Equipment Utilization, Tape Recorders.

ED 016 411

Audio-Visual Instruction, An Administrative Handbook. Missouri State Dept of Education, Jefferson City. Pub Date 61, EDRS Price MF $0.50 HC $4.52 111p

Descriptors: Audiovisual Instruction, Budgeting, Equipment Utilization, Personnel Selection, Program Administration.

ED 016 412

Fall, Charles R. *Individualizing University Instruction, Exploring Computer Potential to Aid College Teachers by Directing the Learning Process. Inter-University Project One, Publications Series.* State Univ. of N.Y., Buffalo, Coll. at Buffalo. EDRS Price MF $0.25 HC $1.08 25p.

Descriptors: College Teachers, Computer Assisted Instruction, Computer Oriented Programs, Individual Instruction, Resource Units

ED 016 413

ETV Guidelines Series. EDRS Price MF $0.25 HC $0.72 16p.

Descriptors: Closed Circuit Television, Educational Television, Equipment Utilization, Video Tape Recordings.

ED 016 414

Hickey, Albert E., and Newton, John M. *Computer-Assisted Instruction. A Survey of the Literature. Second Edition.* Entelek Inc., Newburyport, Mass. Pub Date Jan 67, Document Not Available From EDRS.

Descriptors: Computer Assisted Instruction, Computers, Programed Instruction.

ED 016 415

Walther, R.E., and Crowder, N. *A Guide to Preparing Intrinsically Programed Instructional Material.* Aerospace Medical Research Labs. Pub Date Apr 65, Document Not Available From EDRS.

Descriptors: Guides, Program Design, Programed Instruction, Training Techniques.

ED 016 416

Martorana, S.V. *The Air Force–OAR Contribution to Programed Instruction.* Office of Aerospace Research (Air Force), Wash., D.C. Pub Date Aug 64, Document Not Available From EDRS.

Descriptors: Educational Research, Military Personnel, Military Training, Programed Instruction, Teaching Machines.

ED 016 417

Engel, Gerald L. *Computer Assisted Instruction, A Selected Bibliography and KWIC Index.* Naval Weapons Lab., Dahlgren, Va. Pub Date Jan 67, Document Not Available From EDRS.

Descriptors: Bibliographies, Computers, Programed Instruction.

New Series I Papers

Two new annotated bibliographies have been published by ERIC at Stanford, *A Basic Reference Shelf on Audio-Visual Instruction* by Edgar Dale and Gregory Trzebiatowski and *A Basic Reference Shelf on Interactive Use of Computers for Instruction* by Karl L. Zinn. Complimentary copies of each are available from the clearinghouse, while limited supplies last.

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ED 016 418
Morrill, Charles S. and others. *Programmed Instruction—A Selected Bibliography.* Mitre Corp., Bedford, Mass. Pub Date Jun 62, Document Not Available From EDRS.
Descriptors: Bibliographies, Computer Assisted Instruction, Learning, Programed Instruction, Teaching Machines.

ED 017 162
Gropper, George L. *Programming Visual Presentations for Procedural Learning. Studies in Televised Instruction. Final Report.* American Inst. for Research in Behavioral Sciences, Pub Date Nov 66, EDRS Price MF $0.75 HC $5.64 139p.
Descriptors: Closed Circuit Television, Demonstrations (educational), Mechanical Skills, Recognition, Video Tape Recordings.

ED 017 163
Head Start Telelecture Project. A Feasibility Study to Assess the Potential of Telelecture as a Medium for In-Service Teacher Training in Appalachia. Education Incorporated, Charleston, W. Va., Pub Date Aug 67 EDRS Price MF $0.25 HC $1.64 39p.
Descriptors: Feasibility Studies, Inservice Teacher Education, Teacher Response, Telephone Communication Systems.

ED 017 164
Usage and Utilization of School Television—1966-67. Based Upon the ETV School Canvas for Overall Project Evaluation. Hawaii State Dept. of Education, Honolulu, Pub Date Oct 67 EDRS Price MF $0.25 HC $1.68 40p.
Descriptors: Educational Television, Equipment Utilization, Evaluation, Interviews, Public Schools.

ED 017 165
Gach, Penelope J. and Others. *Feedback Scoring Systems for Reusable Kindergarten Workbooks.* Southwest Regional Educ. Lab., Inglewood, Calif., Harvey Mudd Coll., Claremont, Calif., Eng. Clinic Pub Date Aug 67 EDRS Price MF $0.25 HC $0.88 20p.
Descriptors: Feedback, Kindergarten, Scoring, Workbooks.

ED 017 166
McLuhan, Marshall. *Report on Understanding New Media.* Pub Date 30 Jun 60 EDRS Price MF $0.75 HC $6.16 152p.
Descriptors: Language Patterns, Mass Media, Media Technology, Sensory Experience, Social Change.

ED 017 167
Stolurow, Lawrence M. *Programed Instructions and the Teaching of Mathematics,* Illinois Univ., Urbana, Bur. of Educ. Research, Pub Date 29 Dec 63 EDRS Price MF $0.25 HC $0.88 20p.
Descriptors: Curriculum Research, Mathematics Instruction, Methods Research, Programed Instruction.

ED 017 168
Goldbeck, Robert A. and Others. *Integrating Programed Instruction with Conventional Classroom Teaching.* American Inst. for Research in Behavioral Sciences, Pub Date Dec 62 EDRS Price MF $0.50 HC $4.80 118 p.
Descriptors: Achievement Tests, Conventional Instruction, Program Development, Programed Instruction, Response Mode.

ED 017 169
Travers, Robert M. W. *Studies Related to the Design of Audiovisual Teaching Materials.* Pub Date May 66 EDRS Price MF $1.25 HC $11.08 275p.
Descriptors: Audiovisual Aids, Experiments, Learning Theories, Time Factors (Learning).

ED 017 170
Reynolds, Robert R. *In Service Training in Computer Assisted Instruction for Vocational Teachers. Final Report.* Providence Coll., R.I., Computer Center Pub Date 66 EDRS Price MF $0.25 HC $2.20 53p.
Descriptors: Computer Assisted Instruction, Curriculum Development, Programing Problems, Teacher Education, Vocational Education.

ED 017 171
Five Years of Research in Television Instruction in the Cincinnati Public Schools, 1955-56 through 1959-60. Cincinnati Public Schools, Ohio, Pub Date Sep 60 EDRS Price MF $0.25 HC $0.88 20p.
Descriptors: Abstracts, Experiments, Instructional Television, Learning, Public Schools.

ED 017 172
Miller, William Charles, III. *An Experimental Study of the Relationship of Film Movement and Emotional Response, and its Effect on Learning and Attitude Formation.* University of Southern California, Los Angeles, Pub Date Sep 67 EDRS Price MF $1.00 HC $10.00 248p.
Descriptors: Film Production, Filmstrips, Incidental Learning, Instructional Films, Motion Pictures.

ED 017 173
Instructional Television in Germany. International Central Inst. for Youth and Educ. TV, EDRS Price MF $0.25 HC $1.32 31p.
Descriptors: Abstracts, Educational Television, Instructional Television, Program Descriptions, Research Projects.

ED 017 174
Bibliographie-Fernsehen und Erwachsenenbildung (Bibliography-Television and Adult Education). International Central Inst. for Youth and Educ. TV, Pub Date Jul 66 Document not available from EDRS.
Descriptors: Abstracts, Adult Education, Bibliographies, Educational Television.

ED 017 175
Bibliographie-Schulfernsehen (Bibliography-School Television). International Central Inst. for Youth and Educ. TV, Pub Date Sep 66 Document not available from EDRS.
Descriptors: Abstracts, Bibliographies, Instructional Television, Schools.

ED 017 176
Bibliographie-Fernsehen und Jugend (Bibliography-Television and Youth). International Central Inst. for Youth and Educ. TV, Pub Date Jul 67 Document not available from EDRS.
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Educational Broadcasts of Nhk. (Special Issue of NHK Today and Tomorrow). Japan Broadcasting Corp., Tokyo, Pub. Relat. Board EDRS Price MF $0.25 HC $1.92 46p.
Descriptors: Correspondence Courses, Educational Radio, Educational Television, High Schools, Program Descriptions, Vocational Education.

ED 017 178
Bjerstedt, A. *Tele-Observation-Closed. Circuit Television and Video-Recording in Teacher Training.* School of Educ., Malmo (Sweden), Pub Date May 67 EDRS Price MF $0.25 HC $1.20 28p.
Descriptors: Closed Circuit Television, Demonstrations (Educational), Research Needs, Teacher Education, Video Tape Recordings.

ED 017 179
Gunter, Evelyn. *Programed Learning, Report of a Conference Conducted by the State Department of Education as part of the Oregon Program (Portland, February 6-7 1964).* Oregon State Dept. of Education, Salem, Pub Date 64 EDRS Price MF $0.25 HC $2.08 50p.
Descriptors: Conference Reports, Instructional Innovation, Programed Instruction, State Department of Education, Teaching Machines.

ED 017 180
Bibliographie-Programmierter Unterricht (Bibliography on Programmed Instruction). Pedagogical Center, Berlin (Germany), Pub Date 65 Document not available from EDRS.
Descriptors: Bibliographies, Indexes (Locaters), Programed Instruction.

ED 017 181
Kemp, Jerrold E., Lewis, Richard B. *Evaluation of the Educational Media Kit Project. Final Report.* San Jose State Coll., Calif. Pub Date 20 Nov. 67 EDRS Price MF $0.50 HC $2.48 60p.
Descriptors: Audiovisual Aids, Demonstrations (Educational), Evaluation, Instructional Media.

ED 017 182
Gay-Lord, James H. *Instructional Television. A Utilization Guide for Teachers and Administrators.* Virginia State Dept. of Education, Richmond, EDRS Price MF $0.50 HC $2.72 66p.
Descriptors: Equipment Utilization, Instructional Television, Teaching Guides, Teaching Techniques.

ED 017 183
Spaulding, Seth. *Programmed Instruction and Teaching Machines in Schools of Developing Countries and Technology in Education–Past, Present, and Future.* EDRS Price MF $0.25 HC $0.84 19p.
Descriptors: Methodology, Programed Instruction, Systems Approach, Technological Advancement.

ED 017 184
Schuller, Charles F. and Others. *Survey of Audio-Visual Education in Hawaii–Its Status and Needs.* Pub Date 30 Jun 60 EDRS Price MF $0.50 HC $4.12 101p.
Descriptors: Audiovisual Instruction, Educational Improvement, Educational Needs, Financial Needs, State Departments of Education.

ED 017 185
Comstock, George and Others. *The Peace Corps Educational Television (ETV) Project in Colombia–Two Years of Research. Overview of Research Reports No. 1-10.* Stanford Univ., Calif. Inst. for Commun. Res., Pub Date Nov 66 EDRS Price MF $0.75 HC $5.44 134p.
Descriptors: Changing Attitudes, Developing Nations, Educational Television, Inservice Teacher Education, Teaching Methods.

ED 017 186
Farrar, W. W. *Media in Schools. A Handbook for Teachers and Administrators. (Special Issue of Educational Resources and Techniques, the Official Texaved Journal).* Texas Audio-Visual Educ. Assn., Austin, Pub Date Nov 67 Document not available from EDRS.
Descriptors: Audiovisual Aids, Equipment Utilization, Guidelines, Instructional Media, Personnel Needs.

ED 017 187
Gropper, George L. *The Role of Visuals in Verbal Learning. Studies in Televised Instruction. An Interim Report.* American Inst. for Research in Behavioral Sciences, Pub Date Aug 62 EDRS Price MF $0.25 HC $1.80 43p.
Descriptors: Achievement Gains, Closed Circuit Television, Programed Instruction, Verbal Stimuli, Visual Stimuli.

ED 017 188
Schramm, Wilbur. *The Educational Media and National Development.* United States Nat. Comm. for UNESCO, Wash., D.C., Pub Date Oct 63 EDRS Price MF $0.25 HC $0.40 8p.
Descriptors: Costs, Developing Nations, Instructional Technology, Teacher Education, Teacher Shortage.

ED 017 189
Development, Utilization and Evaluation of Graduate Education by Two-way Radio Active Participation Conferences. Final Report. Albany Medical Coll., N.Y., Dept. of Postgrad. Med., Pub Date 20 Jan 67 EDRS Price MF $0.25 HC $1.56 37p.
Descriptors: Clinical Diagnosis, Educational Radio, Individual Instruction, Physicians, Reliability.

ED 017 190
Davis, Robert H. and Others. *Interaction of Individual Differences with Methods of Presenting Programed Instructional Materials by Teaching Machine and Computer. Final Report.* Michigan St. Univ., East Lansing, Hum. Lng. Res. Inst., Pub Date Dec 67 EDRS Price MF $0.75 HC $5.96 147p.
Descriptors: Feedback, Individual Differences, Programed Instruction, Response Mode, Student Attitudes.

ED 017 191
North, R. Stafford. *A Demonstration of the Impact of Certain Instructional Changes on the Attitudes and Practices of Both Students and Faculty. Final Report.* Oklahoma Christian Coll., Oklahoma City, Pub Date Sep 67 EDRS Price MF $0.50 HC $4.96 122p.
Descriptors: Construction Costs, Educational Change, Equipment Utilization, Library Equipment, Study Centers.

ED 017 192
Wade, Warren Lindle. *Television Tape Recording Systems–A Guide for School Administrators. An Examination of Portable Television Tape Recorders as they Relate to School District Needs.* Ampex Corp., Redwood City, Calif., Pub Date Jan 64 Document not available from EDRS.
Descriptors: Administrator Guides, Equipment Utilization, Tape Recorders, Televised Instruction.

ED 017 193
Wykes, James. *International Exchange of Television Programmes for Schools. Legal and Economic Problems. A European Survey.* Council of Europe, Strasbourg (Austria), Pub Date 66 EDRS Price MF $0.25 HC $1.68 40p.
Descriptors: Broadcast Television, Economic Factors, Educational Television, Legal Problems, Questionnaires.

ED 017 194
Price, Douglas S. *The Introduction of Microfiche for Disseminating Technical Information in the United States.* Documentation Inc., College Park, Md., Pub Date May 66 EDRS Price MF $0.25 HC $1.08 25p.
Descriptors: Equipment Standards, Microfiche.

ED 017 195
Erickson, Clifford G. and Others. *Eight Years of TV College–A Fourth Report. Answers to Some Questions about the TV College Program of Direct Instructional Television.* Chicago Public Schools, Ill., Pub Date Sep 64 Document not available from EDRS.
Descriptors: Costs, Instructional Television, Junior Colleges, Open Circuit Television.

ED 017 196
Space Communication and the Mass Media. A UNESCO Report on the Occasion on the 1963 Space Communications Conference. Reports and Papers of Mass Communication. United Nations Educational Scientific and Cult. Org., Pub Date [illegible] EDRS Price MF $0.25 HC $1.16 27p.
Descriptors: Communication Satellites, Developing Nations, Information Systems, Mass Media, Space.

ED 017 197
Schramm, Wilbur. *The Effects of Television on Children and Adolescents. An Annotated Bibliography with an Overview of Research Results. Reports and Papers on Mass Communication.* United Nations Educational Scientific and Cult. Org., Pub Date 64 EDRS Price MF $0.25 HC $2.28 55p.
Descriptors: Annotated Bibliographies, Behavioral Science Research, Children, Literature Reviews, Television Viewing.

ED 017 198
The Educational Media Index. Educational Media Council Inc., New York, N.Y., Pub Date 64 Document not available from EDRS.
Descriptors: Audiovisual Aids, Classification, Instructional Media, Reference Materials.

ED 017 199
Cassirer, Henry R. *Television Teaching Today. Press, Film and Radio in the World Today.* United Nations Educational Scientific and Cult. Org., Pub Date 60 Document not available from EDRS.
Descriptors: Education Television, Equipment Utilization, Historical Reviews, Program Descriptions, Schools.

ED 017 200
Rural Television in Japan. A Report on an Experiment in Adult Education. Press, Film and Radio in the World Today. United Nations Educational Scientific and Cult Org., Pub Date 60 Document not available from EDRS.
Descriptors: Adult Farmer Education, Changing Attitudes, Community Surveys, Educational Television.

ED 017 201
Silverman, Robert E. *How to Use Programmed Instruction in the Classroom.* Pub Date 66 Document not available from EDRS.
Descriptors: Case Studies (Education), Programmed Instruction, Teaching Guides.

ED 017 202
Mialaret, G. *The Psychology of the Use of Audio-visual Aids in Primary Education. Monographs on Education.* United Nations Educational Scientific and Cult. Org., Pub Date 66 Document not available from EDRS.
Descriptors: Audiovisual Aids, Auditory Perception, Educational Psychology, Primary Education, Visual Perception.

ED 018 108
Fougeyrollas, Pierre. *Television and the Social Education of Women. A First Report on the UNESCO-Senegal Pilot Project at Dakar. Reports and Papers on Mass Communication, No. 50.* United Nations Educational Scientific and Cult. Org., Pub Date 67 EDRS Price MF $0.25 HC $1.56 37p.
Descriptors: Adult Education, African Culture, Educational Television, Family Life Education, Urban Education.

ED 018 109
Brown, Louis H. *A Study to Determine the Feasibility of Developing a Coordinated Distribution System for Audio Tape Recorded Materials. Final Report.* Pub Date 30 Jun 67 EDRS Price MF $0.25 HC $1.08 25p.
Descriptors: Decentralized Library System, Feasibility Studies, Instructional Materials Centers, Questionnaires, Tape Recordings.

ED 018 110
Komoski, P. Kenneth, Ed. and Others. *Programed Instruction Materials, 1964-65, A Guide to Programed Instruction Materials Available for Use in Elementary and Secondary Schools as of April, 1965 (Including a Listing of Programs Annotated in "Programs '63").* Columbia Univ., New York. Inst. for Educ. Tech., Pub Date 65 Document not available from EDRS.
Descriptors: Elementary Education, Programed Instruction, Resource Guides, Secondary Education.

ED 018 111
Homme, Lloyd E. *A Demonstration of the Use of Self-instructional and Other Teaching Techniques for Remedial Instruction of Low-achieving Adolescents in Reading and Mathematics. Technical Progress Report No. 2.* TMI Institute, Albuquerque, N. Mex., Pub Date 5 Jan 68 EDRS Price MF $0.50 HC $3.16 77p.
Descriptors: Administrator Attitudes, Low Achievers, Performance Tests, Scheduling, Teacher Attitudes.

ED 018 112
Andrews, J. Austin. *Development and Trial of a Basic Course in Music Theory Using Self-instructional Materials to Supplement Training Received in High School Performance Groups. Final Report.* Eastern Washington State Coll., Cheney, EDRS Price MF $0.50 HC $3.64 89p.
Descriptors: Academic Achievement, Music Education, Music Theory, Programed Instruction.

ED 018 113
Burr, Helen G., Ervin, Jean C. *The Development and Evaluation of an Automated Instructional Program in Speech Correction. Final Report.* Virginia Univ., Charlottesville, Pub Date May 67 EDRS Price $0.25 HC $2.28 55p.
Descriptors: Articulation (Speech), Auditory Discrimination, Programed Instruction, Self Pacing Machines, Speech Pathology.

ED 018 114
Cram, David. *Explaining "Teaching Machines" and Programming.* Pub Date 61 Document not available from EDRS.
Descriptors: Behavioral Objectives, Linear Programing, Multichannel Programing, Programed Instruction, Teaching Machines.

ED 018 115
Roe, Kiki Vlachouli. *Scrambled vs Ordered Sequence in Autoinstructional Programs. Teaching Systems Research Project.* California Univ., Los Angeles, Pub Date Aug 61 EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: Ability, Academic Performance, Fixed Sequence, Programed Instruction, Time Factors (Learning).

ED 018 116
Diamond, Robert M., Lee, Berta Grattan. *A Storage and Retrieval System for Documents in Instructional Resources. Report No. 13.* Miami Univ., Coral Gables, Fla., University Coll., Pub Date Jul 65 EDRS Price MF $0.25 HC $1.04 24p.
Descriptors: Cataloging, educational resources, information retrieval, information storage.

ED 108 117
Twelker, Paula. *Two Types of Teacher-learner Interaction in Learning by Discovery. Final Report.* Oregon State System of Higher Education, Monmouth, Pub Date Sep 67 EDRS Price MF $0.50 HC $4.32 106p.
Descriptors: Discovery Learning, Positive Reinforcement, Student Teacher Relationship, Teaching Techniques, Transfer of Training.

ED 018 118
Staudacher, Joseph and Others. *Student Learning from Televised Materials in Traditional Classrooms Equipped with Monitors Compared with that in a Theatre Facility Similarly Equipped.* Marquette Univ., Milwaukee, Wis., Pub Date 67 EDRS Price MF $0.25 HC $0.88 20p.
Descriptors: Academic Performance, Classroom Environment, Closed Circuit Television, Operating Expenses.

ED 018 119
Rust, Grosvenor C. *A Study to Explore the Effectiveness of Color Photographs in Intrinsically Programed Automated Instructional Materials. Final Report.* Southern Illinois Univ., Carbondale, Pub Date Nov 67 EDRS Price MF $0.25 HC $2.12 51p.
Descriptors: College Libraries, Optional Branching, Pictorial Stimuli, Task Performance, Teaching Machines.

ED 018 120
A List of Video Materials for Teacher Education, Produced in Connection with the Multi-state Teacher Education Project. Utah State Board of Education, Salt Lake City, Pub Date Nov 67 EDRS Price MF $0.25 HC $0.56 12p.
Descriptors: Catalogs, Instructional Films, Kinescope Recordings, Teacher Education, Video Tape Recordings.

ED 018 121
Wittich, Walter A., Comp., Ed. Halstead, Gertie Hanson, Comp., Ed. *Educators Guide to Free Tapes, Scripts, and Transcriptions. Fourteenth Edition.* Pub Date 67 Document not available from EDRS.
Descriptors: Catalogs, Language Arts, Phonograph Records, Resource Guides, Tape Recordings.

ED 018 122
Horkheimer, Mary Foley, Comp., Ed. Diffor, John W., Comp. Ed. *Educators Guide to Free Films, 27th Annual Edition, 1967.* Pub Date 67 Document not available from EDRS.
Descriptors: Catalogs, Instructional Films, Resource Guides.

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ED 018 123
Report on Meeting of Directors of National Audio-visual Services and Documentary Film Units in South and East Asia, Kuala Lumpur, 31 July–August 1961. United Nations Educational Scientific and Cult. Org., Pub Date 25 Oct 61 EDRS Price MF $0.25 HC $0.72 16p.
Descriptors: Audiovisual Aids, Conferences, Foreign Language Films, Instructional Films, Technical Education.

ED 018 124
Cultural Radio Broadcasts, Some Experiences. Reports and Papers on Mass Communication, No. 23. United Nations Educational Scientific and Cult. Org., Pub Date Dec 56 EDRS Price MF $0.50 HC $2.52 61p.
Descriptors: Conferences, Cultural Activities, Educational Radio, Radio.

ED 018 125
Thapar, Romesh. *Visual Aids in Fundamental Education and Community Development. Report on the UNESCO Regional Seminar in South and South-east Asia held in New Delhi, India 8-27 September 1958. Reports and Papers on Mass Communication, No. 27.* United Nations Educational Scientific and Cult. Org., Pub Date 59 EDRS Price MF $0.25 HC $1.64 39p.
Descriptors: Community Development, Community Education, Conferences, Instructional Films, Literacy Education.

ED 018 126
Film Programmes for the Young, Report on a Presentation of Children's Films Organized by the International Centre of Films for Children (Brussels, 19-23 September 1958). Reports and Papers on Mass Communication, No. 28. United Nations Educational Scientific and Cult. Org., Pub Date 59 EDRS Price MF $0.25 HC $1.44 34p.
Descriptors: Children, Exhibits, Films.

ED 018 127
The Influence of the Cinema on Children and Adolescents, an Annotated International Bibliography. Reports and Papers on Mass Communication, No. 31. United Nations Educational Scientific and Cult. Org., Pub Date 61 EDRS Price MF $0.50 HC $4.36 107p.
Descriptors: Adolescents, Annotated Bibliographies, Children, Films.

ED 018 128
World Film Directory, Agencies Concerned with Educational, Scientific and Cultural Films. Reports and Papers on Mass Communication, No. 35. United Nations Educational Scientific and Cult. Org., Pub Date 62 EDRS Price MF $0.50 HC $2.80 68p.
Descriptors: Directories, Educational Films, Films.

ED 018 129
Social Education Through Television, an all India Radio-UNESCO Pilot Project. Reports and Papers on Mass Communication, No. 38. United Nations Educational Scientific and Cult. Org., Pub Date 63 EDRS Price MF $0.25 HC $1.96 47p.
Descriptors: Citizenship, Community Education, Educational Experiments, Educational Television, Health Education.

ED 018 130
The Teaching Film in Primary Education, Reports and Papers on Mass Communication, No. 39. United Nations Educational Scientific and Cult. Org., Pub Date 63 EDRS Price MF $0.25 HC $2.20 53p.
Descriptors: Instructional Films, Primary Education.

ED 018 131
Selected List of Catalogues for Short Films and Filmstrips, 1963 Edition. Reports and Papers on Mass Communication, No. 44. United Nations Educational Scientific and Cult. Org., Pub Date 65 EDRS Price MF $0.25 HC $1.60 38p.
Descriptors: Annotated Bibliographies, Catalogs, Films, Filmstrips, Foreign Language Films.

ED 018 132
Radio and Television in the Serivce of Education and Development in Asia. Reports and Papers on Mass Communication, No. 49. United Nations Educational Scientific and Cult. Org., Pub Date 67 EDRS Price MF $0.50 HC $2.44 59p.
Descriptors: Conferences, Developing Nations, Educational Radio, Educational Television, Planning.

ED 018 133
Schramm, Wilbur. *Communication Satellites for Education, Science and Culture. Reports and Papers on Mass Communication, No. 53.* United Nations Educational Scientific and Cult. Org., Pub Date 68 EDRS Price MF $0.25 HC $1.24 29p.
Descriptors: Communication Satellites, Cultural Exchange, Information Dissemination, International Education, News Media.

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